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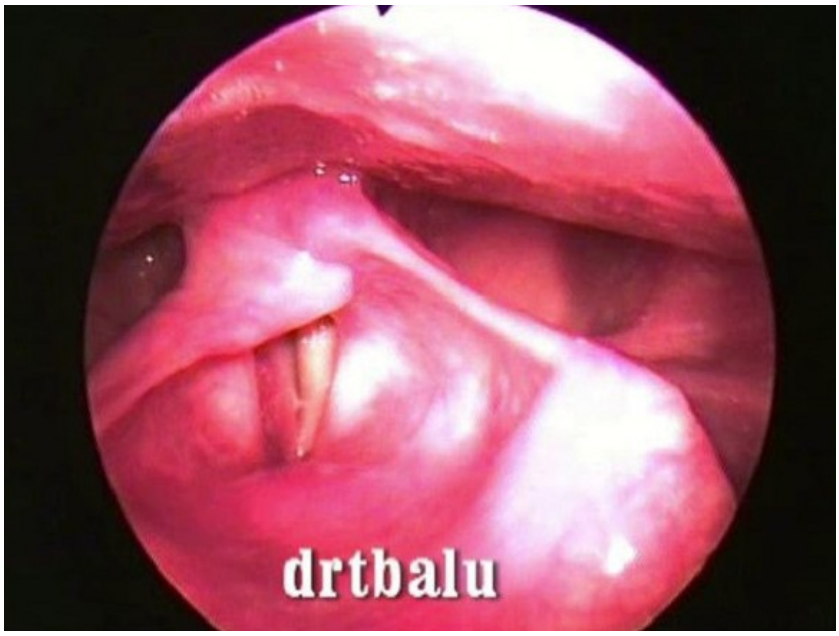

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ABOUT THIS JOURNAL

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Editorial

Hello readers

I would like to share few of my views regarding modern Medical teachings especially with regard to “Otorhinolaryngology” teachings. On the one hand, the amazing speed with which technology is improving and the other the communication has become still speedier, both have benefited the medical field in improving the treatment standards and also globalization. Secondly, faster modes of travelling made it easier to seek medical help at the available places. Third, exchange of medical technology facilitates utilization of medical teachings at remote corners also.

Still, they have adverse effects too. Cost escalation of medical treatment is the main drawback. Even then, medical facility is not available uniformly at all places. Emergence of newer resistant microbes causes much concern.

Third, if man settles in other planet or because of living or travelling in altered gravitational conditions many more medical problems may be induced. Hence the disease scenario and their treatment modalities do change continuously. This is the iceberg of the evolving situation in the medical field, including Otorhinolaryngology.

Keeping this in mind, I would like you to share your views in the medical teachings and curriculum.

To initiate, I request all readers to respond for the following questionnaire. This is just a beginning to improve the existing standards.

1. Medical education should be time bound and helps in producing the required personnel as per the needs.

2. Otorhinolaryngology learning depends on individual variation in acquiring the necessary surgical and technical skills and hence it depends on the level of standard which is independent of time.

3. Otorhinolaryngology is far advanced now; hence it should be diversified and compartmentalized for education purpose.

4. Otorhinolaryngology should always be associated with other branches of medicine and holistic approach is essential.

5. Assessment should be at the end of the training, and then only it will be complete.

6. Assessment should be continuous at each level and sum of this assessment should form the final major part of evaluation as the deeper aspects of skill levels, involvement and overall shaping of the trainee is successful.

7. Marking is most useful ad it is more accurate.

8. Grading only is possible as it helps to update continuously.

9. It is not the pass or fail matters, it is the qualification to do independent practice or practice under guidance matters.

10. Also, it should define where a candidate is eligible, in the periphery or tertiary care centre.

11. Final assessment should also contain a candidate for eligibility to work in teaching or nonteaching positions.

12. Further evaluations should assess periodical updating.

13. Though many methods are employed, almost all methods do have gaps for corruption or influence in the practical life.

14. Cadaver dissections carry more influence in the shaping of skill levels.

15. Social, environmental, psychological and monetary aspects should be given equal importance at every level throughout the period of training.

16. Awareness should be created about the traditional methodology and other branches of medicine. Expecting your critical comments

Yours truly

U. Venkatesan

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MAXILLARY SINUS ANTROSTOMY PITFALLS

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ABSTRACT:

Endoscopic sinus surgery which is the commonly performed nasal surgery has its own problems if not performed properly. Success of maxillay sinus antrostomy depends on including the natural ostium to the antrostomy. For this to happen the natural ostium should be identified during the surgical procedure. Common cause of failure in endoscopic sinus surgery is the failure to address the uncinate process. In all cases it should be removed completely before proceeding further.

Introduction:

The concept of middle meatal antrostomy was based on the path breaking research by Stamberger who demonstrated that mucociliary clearance mechanism [1] ensured that mucosal drainage from maxillary sinus antrum occurred via its natural ostium. Endoscopic middle meatal antrostomy happens to be the commonly performed[2] sinus surgery these days. This apparantly simple surgical procedure is not that simple and failure to perform a proper maxillary sinus antrostomy is the frequent cause of failures in endoscopic sinus surgery. Incomplete removal of uncinate process has been cited to be the commonest cause for surgical failures[3]. The absence of reliable landmarks for identification of natural ostium of maxillary sinus makes this procedure difficult. Ethmoidal sinus / sphenoid sinuses have reliable surgical landmarks in the form of skull base and lamina papyracea [4].

FACTORS RESPONSBILE FOR FESS FAILURES:

1. Incomplete removal of uncinate process

2. Failure to include natural ostium into the antrostomy

3. Involvement of uncinate process in the inflammatory pathology

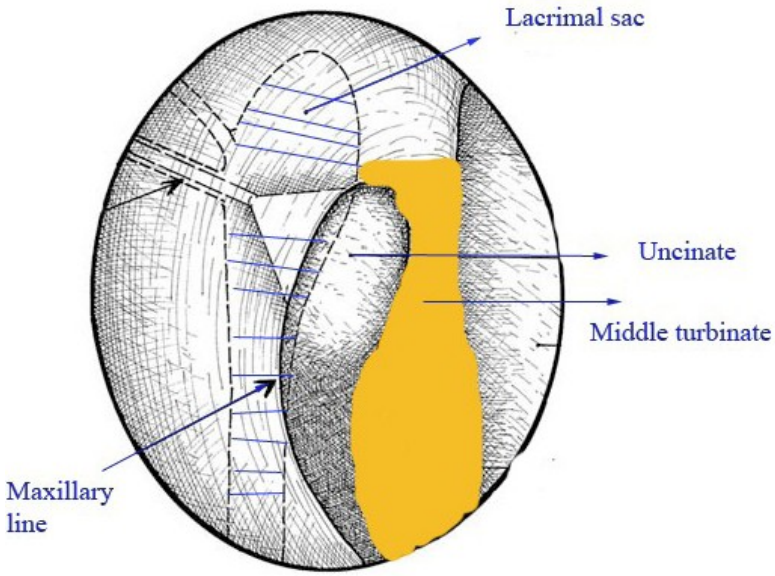
Failure to include natural ostium into the antrostomy will lead to recirculation of mucous between the natural ostium and the maxillary sinus antrostomy performed.

It is the involvement of uncinate process in the disease process that causes failure of Balloon sinuplasty in these patients [1]. Complete uncinectomy should ideally be performed in these patients. This will ensure not only adequate sized maxillary sinus antrostomy is performed but will also help in including the natural ostium with the antrostomy. Anatomically uncinate process is attached to the bony covering of nasolacrimal duct. Bonycovering over nasolacrimal duct is very dense. This change in the bony thickness between the uncinate process and the nasolacrimal duct ensures that a complete uncinectomy can be performedwith minimal trauma to naso lacrimal duct if this anatomical fact is kept in view. According to Bolger a certain amount of minimal trauma occurs commonly during uncinectomy.

Landmark for uncinate process:

The maxillary line is considered to be an ideal surgical landmark if sickle knife is used to excise the uncinate process from its anterior attachment. Maxillary line is a mucosal prominence arising from the anterior attachment of middle turbinate along the lateral nasal wall vertically up to the upper border of inferior turbinate [1]. This line approximates with that of the junction between uncinate process and maxilla. Uncinate process is usually incised behind this line.

After complete uncinectomy the natural ostium could be seen just under the inferior edge of the cut uncinate process. 30 ◦telescope can be used at this juncture to identify the natural ostium of maxillary sinus. In patients with anteriorly placed natural ostium a ball probe can be used to gently probe the posterior fontanelle area. This would cause air bubble to arise from the natural ostium thus enabling its identification.

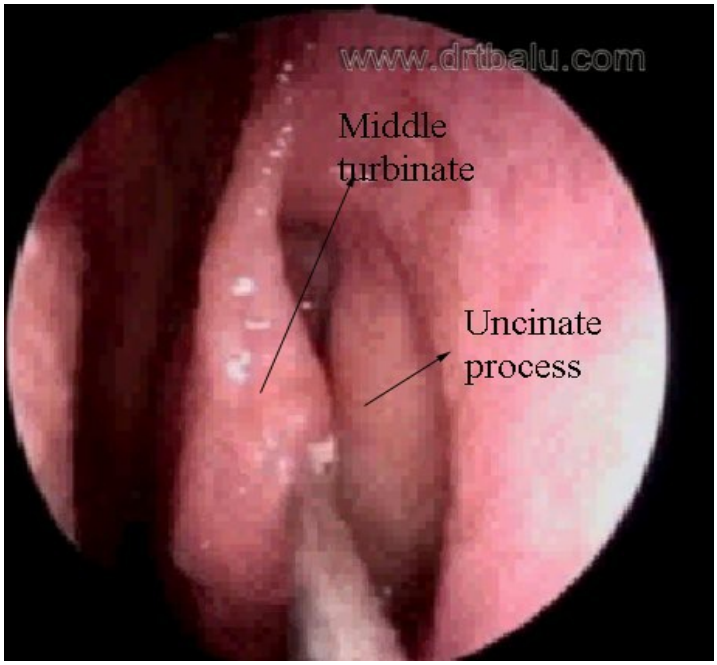


Diagramatic representation of maxillary line and its relationships [5]

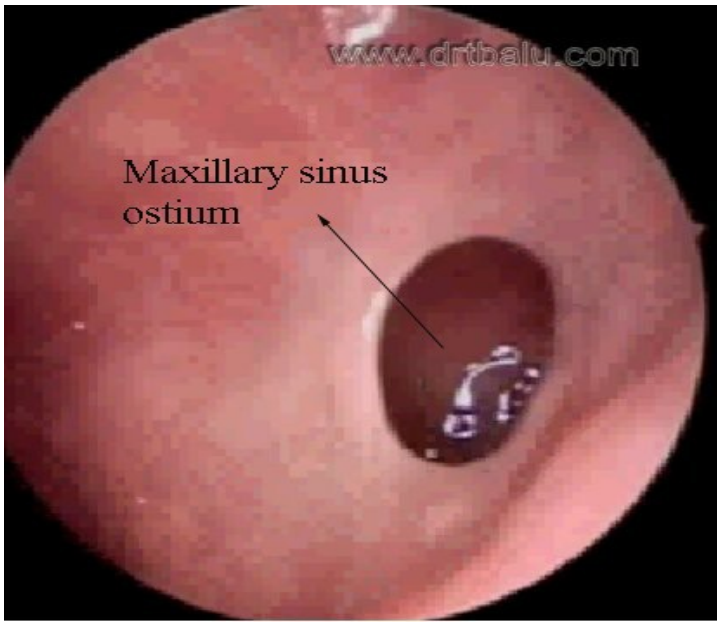
While performing endoscopic sinus surgery it is important to differentiate natural ostium from accessory ostium [6]. Presence of infraorbital cell (Haller) will cause inferior displacement of natural ostium making it difficult to identify during routine endoscopic sinus surgery procedures.

Difference between natural and accessory ostium

Natural ostium	Accessory ostium
Present anteriorly not visible under routine direct nasal endoscopic examination	Present posteriorly and can be easily visualized during routing nasal endoscopic examination
Oval in shape	Spherical in shape
Oriented transversely	Oriented anteroposteriorly



Picture showing endoscopic view of uncinate process



Picture showing natural ostium oriented transversely

Conclusion:

Osteitic reaction that takes place in the uncinate process leads to narrowing of natural ostium of maxillary sinus. Hence it is prudent to remove the entire uncinate process while performing endoscopic sinus surgery.

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GORE- TEX MEDIALIZATION THYROPLASTY- A CASE SERIES

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ABSTRACT:

Unilateral vocal fold paralysis classically presents with voice change, aspiration of ingested materials and cough. Medialization thyroplasty has become treatment of choice for un recovering vocal fold palsy. Still the ideal implant has not been defined in the surgical medialization of vocal folds. We present our experience of gore tex as the implant material.

Introduction:

Vocal fold paralysis is a rather common problem causing speech problems to the patient. If the other cord does not compensate adequately these patients may have troublesome aspiration also. Aspiration happens to be the most dreaded complication of vocal fold paralysis. Management of these patients is possible only by performing medialization thyroplasty. Various implants have been used in this procedure. Presently lot of interest has been generated in Gore tex medialization thyroplasty.

MATERIALS AND METHODS:

A study was conducted in Govt. stanley medical college, Chennai from the year 2009 to 2011. In the period we did 4 cases of medialization thyroplasty with Gore tex material. Cases were evaluated objectively and subjectively.

Inclusion criteria:

1.Unilateral vocal fold paralysis due to paralysis, paresis, atrophy.

2.Unilateral vocal fold scarring, soft tissue loss

3.In selected cases of parkinson's diseases with vocal fold atrophy.

Exclusion criteria:

1.Previous history of irradiation or surgery.

2.Malignant lesions involving larynx

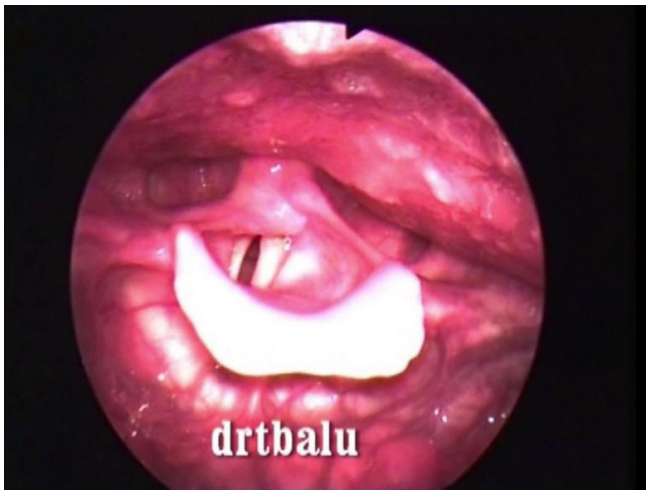
3.Poor abduction of contralateral vocal fold.

PATIENT EVALUATION:

Objective measures:

1. Videolaryngoscopic examination:

Videolaryngoscopic examination was done and recorded for all patients to compare pre operative with post operative vocal cord status. Glottic gap,overriding of arytenoid are noted.



Pre operative videolaryngoscopic picture showing glottis gap and overriding of arytenoids

Post operative VLS examination- disappearance of Glottic gap is seen

2. Maximal phonation time:

The average maximal phonation time of these patients is 6 seconds against normal value of 25 seconds. It is improved post operatively to 20 seconds.

3. Manual compression test:

Even though it is not specific manual compression test done and quality of voice is assessed.

Picture showing Manual compression test

Subjective measures:

Patient's self evaluation:

1.Voice:

Scoring was given to evaluate the voice of the patient as below.

Voice	Original	Improved	Same	Worse
Scoring	2	1	0	-1

Patients were interviewed and scoring were recorded on 6th post op day.

Voice	Case 1	Case 2	Case 3	Case 4
Scoring	1	2	2	2

And patients were followed up on 3 months and 6 months and the same quality of voice is assured.

2. Aspiration and cough:

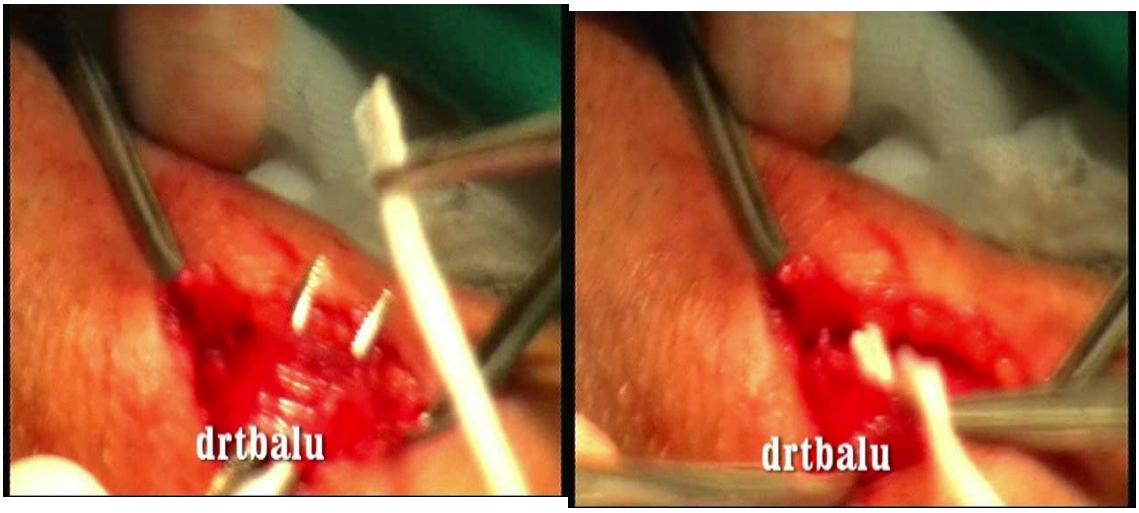
Aspiration and cough were relieved completely in all patients.

Surgical technique:

All cases were done under local infiltration anaesthesia[2] using 2%xylocaine mixed with1 in 1,00,000 units adrenaline.

Picture showing skin incision

Horizontal skin crease incision [3,4] beginning at the mid portion of the thyroid cartilage extending to the paralyzed side.



Pictures showing separation of strap muscles

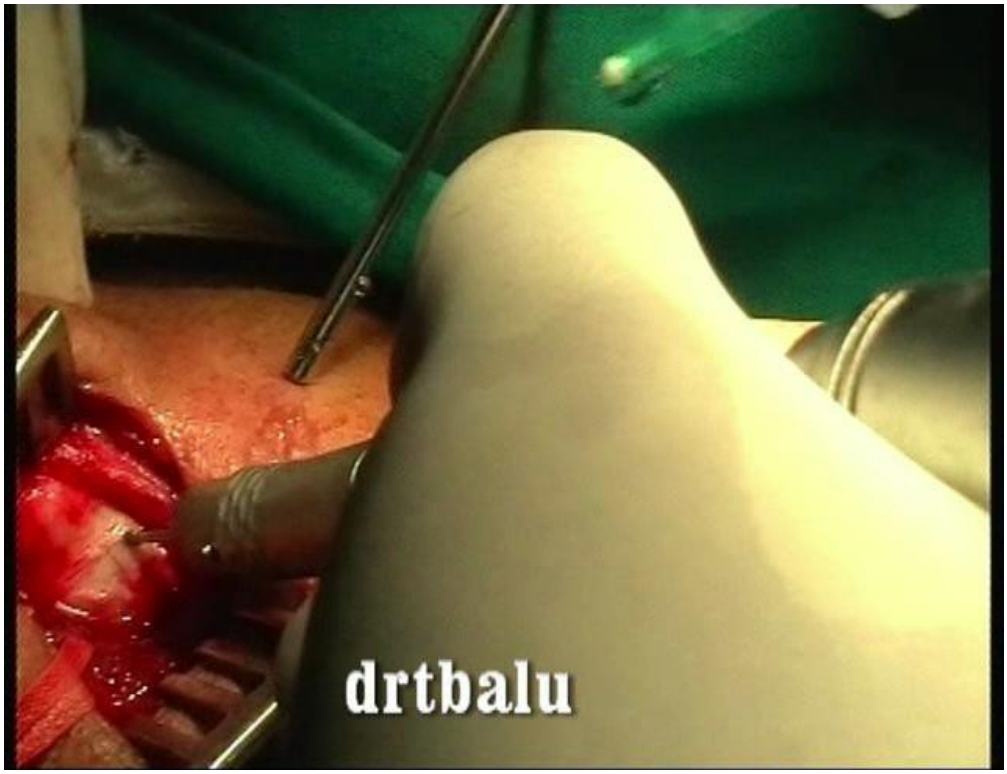
The strap muscles are separated away from midline and held apart from the operating field using umbilical tape. A tracheal hook is used at the level of laryngeal prominence and pulled medially. This helps in mobilizing the cartilage better. The thyroid cartilage perichondrium is incised in the midline and extended laterally towards the paralyzed side.

Picture showing skeletonized thyroid cartilage

The thyroid lamina on the paralyzed side is skeletonized up to the level of cricothyroid membrane. Strips of cricothyoid muscle that come in the way are excised.

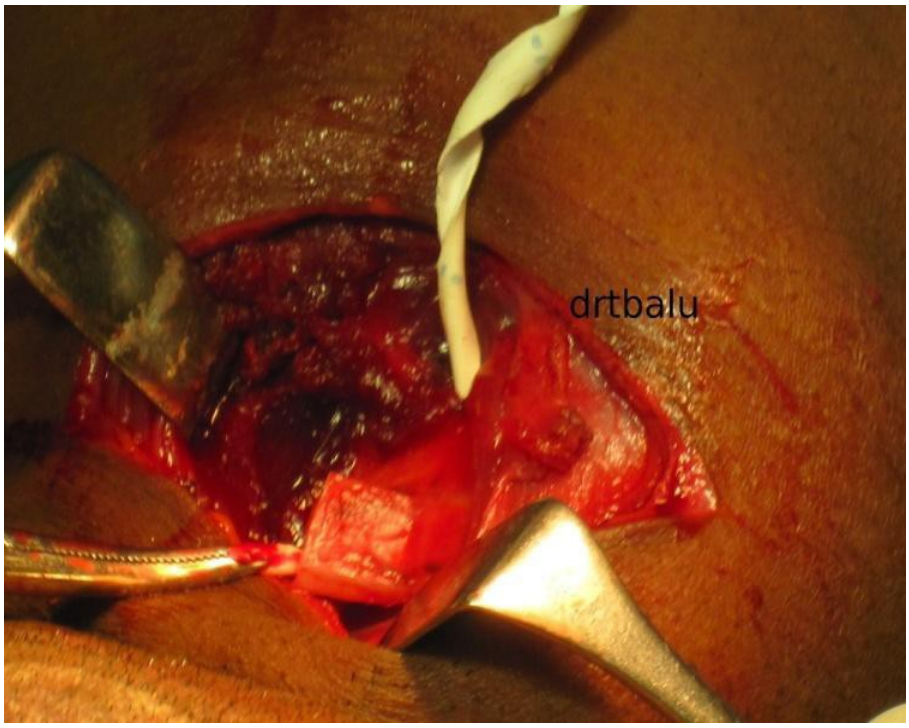
Dimensions of cartilage cuts[3,4]:

Appropriate size of cartilage window is about 5mm x 10mm. The lower border of the window should be about 3mm above cricothyroid membrane. This ensures that the lower strut of thyroid lamina doesn't fracture when window is being created. Anterior border of the window is 8mm posterior to the midline.



Picture showing creating of window in the thyroid cartilage

If thyroid cartilage is calcified then fissure burr can be used to create the window. The inner perichondrium is elevated from the under surface of thyroid lamina using scissors [3,4]. The inner perichondrium incised posteriorly and inferiorly. It is not incised anteriorly. Now the cricothyroid membrane is incised in order to separate it from the lower border of thyroid cartilage. A septal elevator is introduced through the inferior margin of thyroid lamina and the paraglottic space is compressed medially while the voice of the patient is assessed. If the result is acceptable then 1 cm wide Gor-Tex strips dipped in bacitracin solution is introduced via the inferior margin of thyroid lamina and delivered via the window.



Picture showing Gor-Tex insertion

The amount of Gor-Tex insertion is dependent on the improvement of quality of voice

Conclusion : Gore-tex implant showed significant improvement in glottal gap closure and loudness. The result persists for 3 to 6 months follow up period.

Discussion: Gore-Tex is a waterproof/breathable fabric, and a registered trademark of W. L. Gore and Associates. a porous form of polytetrafluoroethylene[1] (the chemical constituent of Teflon) with a micro-structure characterized by nodes interconnected by fibrils. Gore-Tex materials are typically based on thermo-mechanically Expanded polytetrafluoroethylene (PTFE) and other fluoropolymer products. They are used in a wide variety of applications such as high performance fabrics, medical implants, filter media,insulation for wires and cables, gaskets, and sealants. However, Gore-Tex fabric is best known for its use in protective, yet breathable, rainwear. The outer layer is typically nylon or polyester and provides strength. The inner one is polyurethane, and provides water resistance, at the cost of breathability. [1] The first surgical treatment of unilateral vocal cord paralysis in the modern era was Bruning's intracordal injection of paraffin in 1911.[2]

In 1915 Payr [2] introduced anteriorly based thyroid cartilage flap.Each procedure produced only limited success. In 1960s the first synthetic material, teflon was used for vocal fold injection for medialization. Several authors then introduced different modifications but the procedure did not become popular until the late 1970's when Isshiki[2] introduced his thyroplasty technique. This involved displacing and stabilizing a rectangular, cartilaginous window at the level of the vocal cord, therefore pushing the soft tissue medially. This technique gained wider acceptance after Isshiki reported the successful use of Silastic as the implant material. This procedure has been modified by many surgeons by using different prosthesis. In 1996 hoffman and Mc Cullouch reported the first case of medialization thyroplasty using Gore tex material[3]. There are some notable advantages[2,5,6] to the Gore tex material. The flexibility of the ribbon allowsthe surgeon to distribute the degree of medialization differently along the length of the vocal fold. Thus alllowing finely tuned intraoperative adjustments that do not involve removal and replacement of the entire prosthesis. This flexibility also allows the surgeon to fit the ribbon through a small cartilage fenestration. The Gore tex implant does not require carving ,is relatively easy to place,and its malleability permits contouring of the surrounding tissue. Greater pliability also may decrease extrusion potential and make Gore tex a more naturel implant for vocal fold augmentation. Because of these unique properties inherent to the material itself , and the case of surgical placement , indications for thyroplasty may be expanded to include almost any anatomic defect at the glotticlevel that leads to aerodynamic glottic insufficiency.

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MEDICOLEGAL STATUS OF DEAF PERSONS IN INDIA

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INTRODUCTION:

Deaf persons worldwide constitute an invisible minority community. In India, 63 million people (6.3%) suffer from significant auditory loss.[1] The National Sample Survey (NSS) 58th round (2002) surveyed disability in Indian households and found that hearing disability was the second most common cause of disability. In urban areas, hearing loss was 9% of all disabilities and in rural areas it was 10%. Overall estimates show that hearing disability was 291 per 1, 00,000 persons.

The Constitution of India, is equally applicable to all citizens of India, whether normal or disabled[2]. The term “disability” has not been defined in the Constitution of India. However, under the Constitution the disabled have been guaranteed fundamental rights.

Additional special legislations are in force, but these are only applicable for women, children and the socially and educationally backward classes.

Earlier, the Constitution of India was lacking in separate legislation specifically for disabled persons.

The first legislation enacted by the government of India, was the Rehabilitation Council of India Act in 1992. The Persons with Disabilities Act, passed later in 1995, has included hearing impairment in the list of disabilities. It also outlines the rights for persons with disabilities.

This article does not deal with rehabilitation of the hearing impaired in India.

We wish to shed light only on the current legal status and rights of hearing handicapped persons in India.

Deafness Definitions

The deaf are those persons lacking the power of hearing for ordinary purposes of life. They do not hear or understand sounds even with amplification.

WHO definitions: The WHO definition of 'deafness' refers to the complete loss of hearing ability in one or two ears.[3] The cases included in this category will be those having hearing loss more than 90 decibels in the better ear (profound impairment) or total loss of hearing in both the ears.

The WHO definition of 'hearing impairment' refers to both complete and partial loss of the ability to hear[3] .

Deaf blindness is a condition presenting other difficulties than those caused by deafness and blindness. It includes persons who may suffer from varying degrees of visual and hearing impairment[4].

It includes children and adults who are blind and profoundly deaf, blind and severely or partially hearing, partially sighted and profoundly deaf and partially sighted and severely or partially hearing Disability Definition.

Terms such as impairment, disability and handicap are commonly used randomly. WHO has adopted a sequence named WHO Disability Sequence[5] as:

Disease ——> Impairment ——> Disability ——> Handicap (Table1)

Condition	Concerned with	Represents
Impairments	Abnormalities of body structure and appearances; organs or system functioning	Disturbances at organ level
Disabilities	Impairment in terms of Functional performance and activities	Disturbances at personal level
Handicaps	Disadvantages resulted	Interaction with and

Table 1: Explanation of Various Terms as Adopted by WHO [5]: (Source: WHO Classification of Impairments, Disabilities & Handicaps)

The International Classification of Impairments, Disabilities & Handicaps[5] (1980), has defined new nomenclature for functioning and disability.

“Disability” has been redesignated as “Activity Limitation” and “Handicap” as “Participative Restriction”.

Further, the term “Disability “will henceforth be an umbrella term covering all the three terms, namely- Impairment, Activity Limitation and Participative Restriction.

The International Classification Functioning, Disability and Health[6] (ICF)(2001), describes the terms ‘health’ and ‘disability’ in a new light. It states that every human being can experience a decrement in health and thereby experience some degree of disability. Disability need not happen to a minority of humanity. The ICF thus ‘mainstreams’ the experience of disability and recognizes it as a universal human experience. (Table 2)

Grade of impairment	Corresponding audiometric ISO value	Performance	Recommendations
0 - No impairment	25 dB or better (better ear)	No or very slight hearing problems. Able to hear whispers.	
1 - Slight impairment	26-40 dB (better ear)	Able to hear and repeat words spoken in normal voice at 1 metre.	Counselling. Hearing aids may be needed.
2 - Moderate impairment	41-60 dB (better ear)	Able to hear and repeat words spoken in raised voice at 1 metre.	Hearing aids usually recommended.
3 - Severe impairment	61-80 dB (better ear)	Able to hear some words when shouted into better ear.	Hearing aids needed. If no hearing aids available, lip-reading

			and signing should be taught.
4 - Profound impairment including deafness	81 dB or greater (better ear)	Unable to hear and understand even a shouted voice.	Hearing aids may help understanding words. Additional rehabilitation needed. Lip-reading and sometimes signing essential.

Table 2: WHO Hearing impairment grades[4]

(Grades 2, 3 and 4 are classified as disabling hearing impairment. The audiometric ISO values are averages of values at 500, 1000, 2000, 4000 Hz.)

Deafness in Indian Constitution:

In India, "hearing handicapped" as defined by The Rehabilitation Council of India Act,1992,[8] is - hearing impairment of 70 decibels and above, in better ear or total loss of hearing in both ears.

This law is applicable to only those persons with severe hearing impairment whose hearing loss is 70 decibels and above. A person with hearing levels of 61 to 70 decibels, (although suffering from severe hearing impairment, as per WHO classification), is automatically excluded in the hearing handicapped category.

Section 2(i)(iv) of the Persons with Disability Act,1995,[9] (PWD) states that 'hearing impairment' is a disability and a "person with disability" means a person suffering from not less than forty per cent of any disability as certified by a medical authority.

In addition, in Section 2(l) "hearing disability has been redefined as – "a hearing disabled person is one who has the hearing loss of 60 decibels or more in the better ear for conversational range of frequencies".

This is a step in the right direction, as all persons with severe hearing impairment are now included in the hearing handicapped category.

Calculation of percentage of handicap in deaf persons[10]

As stated above, “person with disability" means a person suffering from not less than forty per cent of any disability as certified by a medical authority.

Percentage of hearing handicap can be calculated by the following formula:-

Degree of handicap:

The average pure tone hearing level in the 3 speech frequencies 500,1000 & 2000 Hz is calculated. If this average is ‘X’, then 25 is deducted from it eg. X-25.This value is then multiplied by 1.5.

Thus the formula is :

[Average of 3 speech frequencies minus 25] multiply by 1.5.

Similarly, the percentage of hearing impairment is calculated for the other ear.

The total hearing handicap of a person is then calculated as follows:

[(Better ear % x 5) + (Worse ear %)] ÷ 6

Legal provisions for the hearing handicapped in India

Fundamental rights

Under the Constitution the disabled have been guaranteed all the fundamental rights,(Articles 14,15,16 and 21) including equality of opportunity[2].

The Constitution provides effective guidelines for the government to make provisions including legislative provision for the disabled.

Education

The State can set up educational institutions for disabled persons such as schools for the deaf,etc. For admission to institutions of higher learning, reservation may be provided for those who are handicapped or disabled, but otherwise are competent to pursue higher education.

Health

There exist health laws relevant to the disabled. The Rehabilitation Council of India Act, was enacted in 1992. Provision for the health of the disabled has been made in the Persons with disabilities(equal opportunities, protection of rights and full participation) Act, 1995.

Driving license

Earlier, the Motor Vehicles Act and Rules automatically disqualified a deaf person from obtaining a driving license based on the premise that, deaf persons, if permitted to drive, would be a danger to the public.

India is a signatory to United Nation‘s Convention (2007) on persons with disabilities. As a result, a person, though deaf, but holding an international driving license could drive in India, and a deaf person from India going abroad could get an international driving license and would be eligible to drive both abroad and in India.

Thus deaf persons from abroad, including Indians, who possessed an international driving license could legally drive in India while deaf persons from India were prohibited from the same. In a recent landmark judgment (14th February 2011), the Delhi High Court has permitted deaf persons to take a driving test, and if they pass, to get a driving licence[11]. By allowing deaf persons to go through the test and drive if they are found capable, the High Court has, for the first time in this country, permitted deaf persons to legally drive a vehicle.

Employment (Reservation of posts/employment schemes)

The labour laws in India apply equally to the disabled and the non-disabled. Special Employment Exchanges have been established in some State Capitals and Special cells in other employment exchanges. The number of special Employment Exchanges in India is 23 while the number of special cells in ordinary exchanges is 55. They register handicapped persons seeking jobs and also arrange for placement in public and private sector. Special provisions exist such as job quota for the disabled, etc. Section 33 of the Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995 provides for a reservation of 3% in the vacancies in identified posts (1% for persons with hearing impairment) in the Government establishments including the Public Sector Undertakings12. The service

rules of the Government provide that an employee who becomes disabled should be adjusted in a post where his disability will not prevent him from rendering work. Deprivation of work due to disability should be ruled out.Workers who become disabled during the course of employment are entitled to compensation as per the Workmen's compensation Act, 1923.[13]

Workmen's Compensation Act,1923 [13]

Schedule I of the Workmen's Compensation Act,1923 provides the list of injuries leading to Permanent Total disablement. This includes absolute deafness and awards 100 percent of loss of earning capacity.

However, the list of injuries leading to Permanent Partial disablement does not include hearing impairment.

Factories Act [14]

The Factories Act does not contain any specific provision for noise control.

However, under the Third Schedule of the Act, noise induced hearing loss (exposure to high noise levels), is mentioned as a notifiable disease.

Housing

Disabled persons are conferred preferential allotment of land at concessional rates for housing2. Residential houses are allotted to the handicapped persons who are in Government service on a priority basis. An example is the Delhi Development Authority15 which reserves shops, residential plots and flats in each housing scheme for disabled persons.

Railway travel concession[16]

The Ministry of Railway allows the disabled persons/patients to travel at concessional fares in Indian railways.

Deaf persons are allowed 50% concession in rail fares on production of Medical Certificate issued by the Govt. Medical Officer. 50% concessions is also allowed in monthly seasonal (first and second class) ticket fares to the deaf. No concession is allowed for the escort of the deaf person.

Income tax laws [2]

The Income Tax Act, 1961 allows concessions to those subject to permanent physical disability and also allows deductions incurred on the maintenance of the

disabled. In the IT (Third Amend) Rules, 1992 ,Section 80U has included permanent deafness with hearing impairment of 71 decibels and above.

Section 80U of the said Act provides that in computing the total income of a resident individual, who is suffering from a permanent physical disability specified by the Central Board of Direct Taxes, which is certified by a physician or Surgeon, working in a Government hospital, and which has the effect of reducing considerably such individual's capacity for normal work or engaging in a gainful employment or occupation, there shall be allowed a deduction of a sum of Rs. 50,000 with enhanced limit of Rs. 75,000 for the severely disabled.

Under Section 80DD, deductions will be available to an assesse resident in India, in respect of maintenance including medical treatment of a handicapped dependant.. The said disability must be certified by the physician or surgeon, working in a Governmental hospital and which has the effect of reducing considerably such person's capacity for normal work or engaging in a gainful employment or occupation.

Earlier in the Finance Act disability was referred to as handicap and was defined in Rule 11A and 11D of the Income Tax Rules. To avail of any benefit or exemption a person had to have a permanent physical disability which included disability arising out of hearing,etc. to the extent specified. This was required to be certified by Government Doctor specializing in the respective field. Income Tax law accepted disability to be incurable while describing it as a permanent physical disability.

The exact nature of disability under the law was brought in line with the Persons with Disability Act, 1995. Under this act, the term disabled has to be treated as defined in the said Act, even if it may be cured after some time. Curable disability or disability which is severe now but may not be severe later requires to be certified for a limited period. The burden of proof for such certification lies on the disabled. Under Section 80 V, the parent of a permanently disabled minor is allowed to claim a deduction up to Rs.20,000.

Indian Penal Code (1860)[17]

Assault leading to hearing impairment falls under the purview of grievous hurt.

The Indian Penal Code (Section 44),has defined injury as ‘any harm whatever illegally caused to any person, in body, mind, reputation or property. Further, in Section 320, Permanent privation of the hearing of either ear is designated as a 'Grievous Hurt’.

Future legislation

Ministry of Social Justice & Empowerment had, constituted a committee, to draft a new legislation for persons with disabilities, replacing the present Persons with Disabilities (Equal Protection of Rights and Full Participation) Act, 1995. The Committee submitted a draft called The Rights of Persons with Disabilities Bill, 2011. (9th February, 2011 version)[18].

Every person with disability has the right to be informed of the various rehabilitation options and make the final decision on the course of rehabilitation.

All persons with disabilities have a right to be provided aids and appliances of

recognized quality at an affordable cost along with the requisite training to utilize it. There shall be constituted for the purposes of this Act, a Fund to be called the National Fund for Persons with Disabilities.

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THYROID DISEASES AND SURGERY: AN AUDIT FROM ORL-HNS DEPARTMENT OF STANLEY MEDICAL COLLEGE AND HOSPITAL

DR SRIKAMAKSHI, DR T BALASUBRAMANIAN, DR N SEETHALAKSHMI

ABSTRACT:

This article is an audit of the thyroid surgeries performed in the Otorhinolaryngology-Head and Neck Surgery (ORL-HNS) department of Stanley Medical College and General Hospital, Chennai- 01, during the 2 year period from 2009 to 2011. 5O Thyroid surgeries have been performed during this period of which 12 were total thyroidectomies and the remaining 38, hemi thyroidectomies.

Adenoma of the thyroid was the most common benign disease encountered while papillary carcinoma was the only malignant disease of thyroid diagnosed.

INTRODUCTION:

Diseases of the thyroid constitute one of the most common endocrine disorders; probably the second most common, following diabetes. The number of patients with thyroid related issues who present themselves in the OPD , more relevantly in the ORL-HNS OPD these days, is on the rise, possibly due to increasing awareness among the public. Such seems to be the situation in the ORLHNS OPD of Stanley medical college and general hospital as well. 50 thyroid surgeries have been performed during the 2 year period from 2009 to 2011 and we are still counting! There definitely seem to be regional variations in the most common disease of thyroid that is prevalent. While somecenters have reported colloid goiter, and some others multinodular goiter as their most prevalent thyroid disease, ours turned out to be adenoma. However, Multi-nodular goiter was the most common indication for a total thyroidectomy while adenoma was the only indication for a hemithyroidectomy.

All papillary carcinomas were treated with a total thyroidectomy.

THE CLINICAL SCENARIO:

Of the 50 cases that we are discussing here, there was only a single male patient. Females thus constituted a whopping 98% of the study group! This goes on to prove the higher prevalence of thyroid diseases among the female population. The only elderly male patient turned out to be a case of papillary carcinoma of thyroid, who was subsequently treated with a total thyroidectomy. Patients who underwent hemi-thyroidectomy belonged to the age group ranging between 35-45 years, while patients treated with a total thyroidectomy were aged between 50-60 years.

All cases were evaluated pre-operatively with basic investigations such as a complete blood count, blood grouping, renal function tests, urine routine, ECG, chest X-ray, as well as thyroid specific investigations such as USG neck, FNAC thyroid which gave us a presumptive diagnosis and the indication for the appropriate surgery for the patient. The thyroid hormone status was also assessed for all patients by blood tests for T3, T4 and TSH, and euthyroidism was ensured before surgery.

There were 38 cases of adenoma thyroid (76% of study group), all of whom were treated with hemithyroidectomy.

Thus, hemi-thyroidectomies constituted 76% of the total number of thyroid surgeries

performed, while adenomas of the thyroid constituted 100% of the cases treated with a hemithyroidectomy.

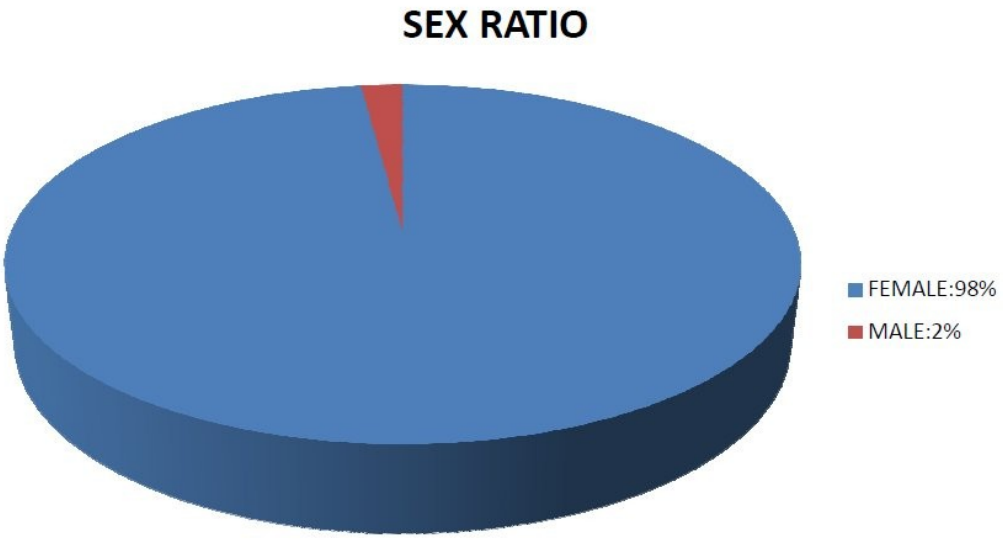
We encountered 7 cases of multinodular goiter (14% of study group). The surgery performed on them all was a total thyroidectomy. The remaining 5 cases of our study group turned out to be papillary carcinoma of thyroid (10%), all of whom underwent total thyroidectomy. Thus multinodular goiter contributed to 58.4% of the total thyroidectomies performed, while the remaining 41.6% was contributed by papillary carcinoma of thyroid.

Post-operatively, all the thyroid specimens were sent for histo-pathological study. This became important as there was 1 case of adenoma thyroid which turned out to be lymphocytic thyroiditis on biopsy. This is significant as this case which was managed with hemi-thyroidectomy, went on to lead to the only case of recurrent laryngeal nerve paresis post-operatively in our study group. This warrants an analysis about any relationship between surgery for lymphocytic thyroiditis and recurrent laryngeal nerve paralysis and whether surgery should be deferred for the

same. There was a single case of transient hypoparathyroidism (2%) following a total thyroidectomy for papillary carcinoma.

DISCUSSION:

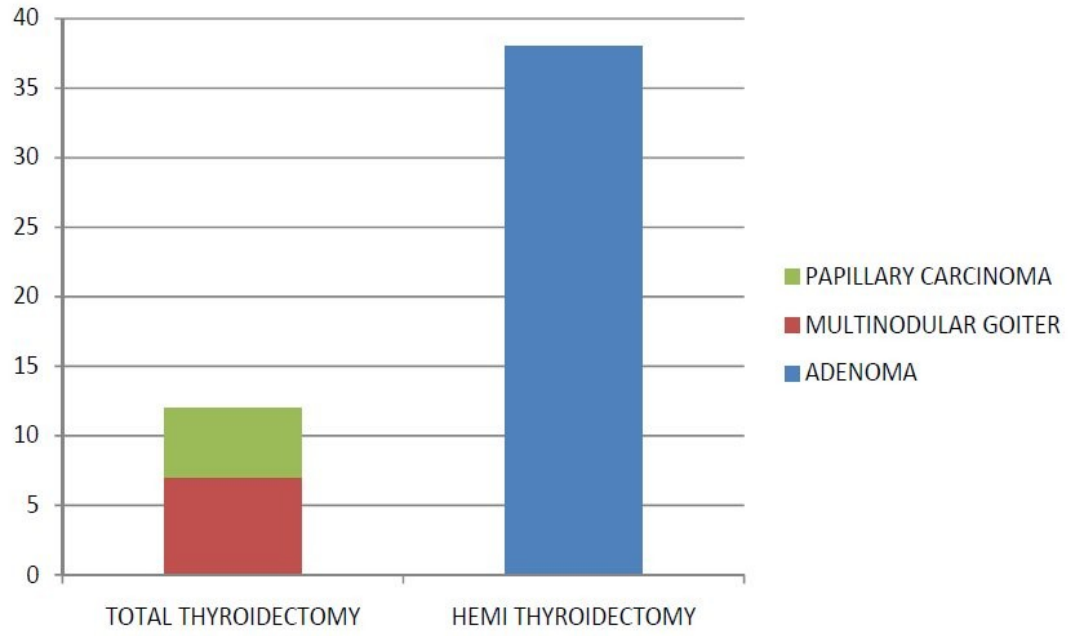
We consider this article an earnest endeavor to understand the spectrum of thyroid diseases in the community and to present to you an audit of the surgeries that have been appropriately undertaken for each diagnosis at Stanley Medical College and Hospital.[1,2,3,4,5,6,7] Lets begin this discussion by considering the sex divide for starters. There seems to be no controversy in this regard, with studies from Hyderabad, Nigeria, Karachi, Saudi, Ethiopia, Kenya and the rest of the world reporting a striking female preponderance, with a female: male ratio of 5:1, reported in Nigeria, and 4.5:1 reported from Ethiopia and Saudi.[1,2,3,5,6,7]



Next coming to the age distribution. We observe a bimodal distribution with a clustering of benign adenomas and hemi-thyroidectomies performed for the same thyroidectomies having to be performed for multinodular goiter and papillary carcinoma for patients beyond 50 years of age. Studies conducted in Nigeria give an age range of 11 group, while the Ethiopian study group reports an age range of 20

Adenoma thyroid was the most common pre-operative diagnosis we had. There definitely seems to be some discrepancy in this regard between regions, with studies from Karachi and Saudi reporting multinodular goiter as their most common diagnosis and studies from Ethiopia finding colloid goiter to be their most common indication for a total thyroidectomy. Papillary carcinoma was the only malignant disease of the thyroid we encountered.

There is agreement between stateds and regions in finding papillary carcinoma of thyroid as the most common malignant disease, though follicular and medullary variants also seem to have been dealt with by them. It seems to be an unanimous decision among surgeons to treat papillary carcinoma with total thyroidectomy with or without neck node dissection depending on nodal status [15 16].



Graph showing thryoid surgeries performed for various disorders

The histopathological diagnosis reached after surgery[12,13,14] is important in assessing the appropriateness of the surgical technique we have undertaken for every clinical diagnosis, especially hemithyroidectomies. The histopathological examination of the specimen would reveal a lurking malignant potential for the remaining thyroid tissue, if any, and thus aid us in considering a revision total-thyroidectomy for the same indication. Such was not the case though for any of the hemithyroidectomies that we performed. Instead, one of the hemi thyroidectomyspecimens, gave us a HPE

diagnosis of lymphocytic thyroiditis. Moreover, the very same patient, went on to have transient unilateral recurrent laryngeal nerve paresis, making us consider revision of the treatment modality to be undertaken for thyroiditis.

S.No	HISTOPATHOLOGICAL DIAGNOSIS	NUMBER	PERCENTAGE
1.	Adenoma of thyroid	37	74%
2.	Multi-nodular goiter	7	14%
3.	Papillary carcinoma of thyroid	5	10%
4.	Lymphocytic thyroiditis	1	2%

Coming to the post-operative complications[17] that we had to handle.Likewe mentioned before, there was a single case of unilateral recurrent laryngeal nerve paresis[21,22,23] for a hemi-thyroidectomy that we performed. A study by Wagner HE and Seiler C reports lymphocytic thyroiditis as the 2nd most common cause for a RLN palsy after malignancy[21]. Other studies report surgery for euthyroid Hashimoto's as a good option to relieve the pain and discomfort associated with the swelling, though the surgery could be more technically demanding than usual.[24,25,26]

There was a single case of transient hypoparathyroidism[18,19,20] following a total thyroidectomy for papillary carcinoma of thyroid. A review of literature reveals comparatively increased incidence of hypoparathyroidismfollowing total thyroidectomy compared to a hemi- and sub-total thyroidectomy.

Some authors suggest adopting meticulous micro-surgical operative techniques and practising parathyroid autotransplantation(PTAT) post-thyroidectomy to prevent post-operative hypocalcemia. Considering the differences in distribution of thyroid diseases between regions, we need to make efforts to understand the pattern and endemicityof the disease in our community and look into its possible etiopathogesis, such as iodine deficiency, radiation exposure, familial clustering etc., so that we could plan measures to control the same and reduce the disease burden in the community on the one hand, while on the other hand, we treat the diseased lot with the most appropriate surgical technique, when indicated. A study conducted in Yemen reveals such endeavours already underway in their region.[27]

Conclusion:

Thyroid disorders continue to be a commonly encountered endocrine disorder, with adenoma thyroid ruling the roost in our community. The female preponderance is there to be seen in black and white. There is a clustering of malignancy in the elderly and benign cases in the middle-aged.

Adenoma thyroid was the most common benign lesion seen, while papillary carcinoma was the only malignant diagnosis made. There was one case each of recurrent laryngeal nerve paresis and transient hypoparathyroidism directing us to look into any possible correlation between surgery for lymphocytic thyroiditis and nerve palsy, and also re-establishing the risk of hypoparthyroidism in performing a total thyroidectomy.

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A NOVEL METHOD OF MANAGING ANTERIOR EPISTAXIS

Dr Kameshwaran P Dr T Balasubramanian

ABSTRACT:

Epistaxis defined as bleeding from the nose, one of the most common, most difficult to treat emergency in otorhinolaryngology. In this article, we dealt with management of anterior epistaxis using Rigid nasal endoscopy and Bipolar diathermy with the aid of stax mallet splint that has its added advantage.

INTRODUCTION:

Hippocrates was first to appreciate that pressure on the alae nasi was an effective method to control nasal bleeding. Carl Michel (1871), James little (1879) and Wilhelm Kisselbach was first to identify the nasal septum's anterior plexus as a source of nasal bleeding.

Little's area/ Kisselbach's Plexus 1:

Located in the anterior inferior part of the septum.

This is supplied by:

1. Septal branch of Anterior ethmoidal artery
2. Septal branch of Superior labial branch of facial artery
3. Septal branch of sphenopalatine artery
4. Septal branch of greater palatine artery

5.

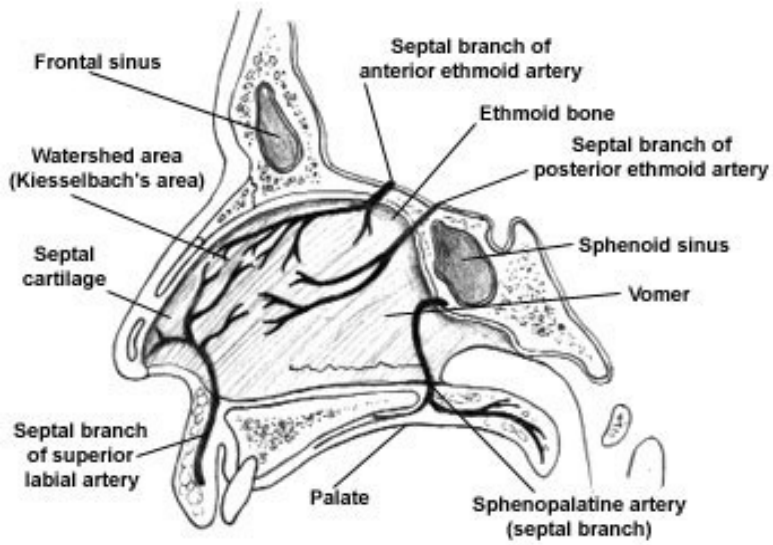

Diagram showing Little's area

INCIDENCE :

Idiopathic 70-80%

CLASSIFICATION :

I (A) Primary

(B) Secondary

II (A) Spontaneous

(B) Induced

III (A) Anterior

(B) Posterior

The Maxillary Sinus Ostium serves as dividing line between anterior and posterior epistaxis.

INCLUSION CRITERIA :

Age – more than 40 years

Recurrent primary anterior nasal bleeding

No other systemic complication

MALLET SPLINT :

A Mallet splint 2 is a common tool used to treat Mallet (Trigger) finger. This splint is available in different sizes. It can be cut and introduced into the anterior nares. This keeps the nasal cavity open providing a good view of nasal septum area. It also has the advantage of leaving both the surgeon's hand free. The most proximal part of the Mallet splint is cut and shaped into a "U" shaped splint. This splint can be readily inserted into the nasal cavity. Since this splint is made of silastic, its memory holds the nasal cavity open.

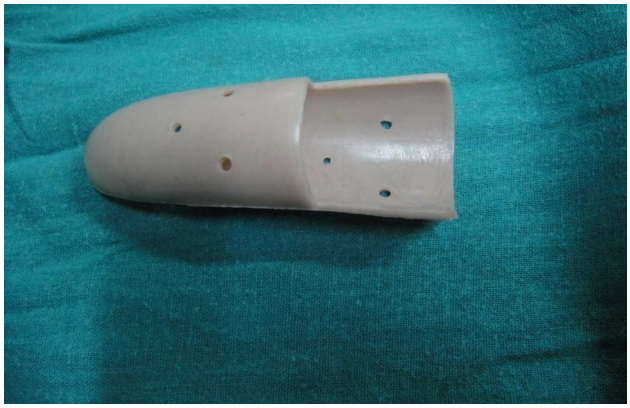

Figure showing STAX MALLET SPLINT

Figure showing Stax Splint cut

PROCEDURE:

Under Local anaesthesia with aseptic precaution, Stax Mallet Splint introduced into nasal cavity, thus it hold the nasal cavity wide open , and using Rigid Nasal Endoscopy and Bipolar Diathermy[3,4,] the bleeding site has been cauterized.

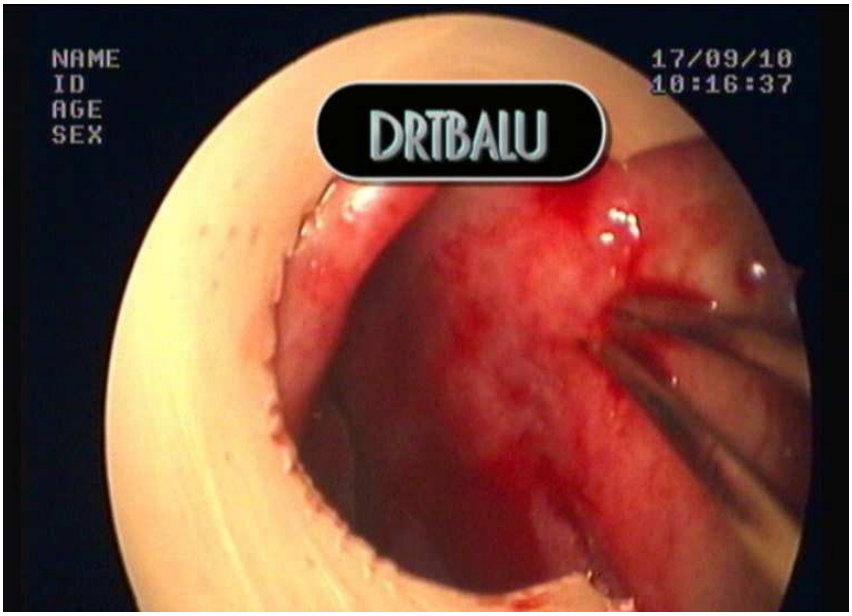

Image showing cauterization of Little's area of nose using bipolar cautery after inserting Mallet splint

CONCLUSION:

Thus stax mallet splint can be used in anterior epistaxis as a supplementary tool to make things easier and effective.

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Secondary Tuberculosis of Tonsil case report and literature review

Dr T Balasubramanian, Dr U Venkatesan, Dr R Geetha

Abstract:

Tuberculosis of Tonsil is almost forgotten these days. “What the mind doesn’t know the eye doesn’t see”. With increasing incidence of HIV tuberculosis is undergoing resurgence. Drug resistant strains add to the problem. Major aim of this article is to create an awareness of this condition and also to revisit earlier literature. This case report discusses a case of secondary tuberculosis of tonsil. Diagnosis should always include histopathological examination in addition to microbiology and radiology as co existent malignancy of tonsil is a strong possibility.

Introduction:

Every year roughly about 8-10 million[1] people worldwide contract Tuberculosis. Majority of these patients suffer from pulmonary tuberculosis. Every year 3 million die of Tuberculosis worldwide. According to W.H.O the largest number of new TB cases was reported from SE Asia region. Tuberculosis is still considered to be a scrooge even today because of the increasing incidence of drug resistance[2] among Tubercle bacilli and wide prevalence of HIV[3] infection.

Incidence of tuberculosis involving tonsillar tissue has been rather low. One study conducted by Weller during the years 1906-1919 reported the incidence to be 2.3%. Wilkinson[4] (1929) put the incidence to be about 0.5%. Abrol & Sinha[5] (1965) reported nil incidence of tonsillar tuberculosis. This decline in incidence was attributed to widespread pasteurization of milk during that time.

Even though tonsil is a lymphoid tissue positioned critically where it is constantly drenched by infected sputum / saliva the incidence of tonsillar tuberculosis has remained rather low. Probable reasons for this low incidence could be[6]:

1. The antiseptic and cleansing action of saliva

2. Presence of saprophytes in oral cavity making colonization of tuberculous bacilli rather difficult

3. Thick protective stratified squamous epithelial surface covering of tonsil resistant to colonization by mycobacterium tuberculosis

4. Inherent resistance of tonsil to tuberculosis

Earliest references to Tubercle bacilli involving pharynx is credited to Virchow (1864)[7]. Lermoyez demonstrated tubercle bacilli in adenoid tissue of 6 years old child. Dr Sims Woodhead[6] Professor of Pathology Cambridge University in his paper titled “Channels of infections in tuberculosis” reviewed the various ways in which tuberculous bacilli enter the living organism. He concluded the portal of infection to cervical lymph nodes is via tonsil.

Philip Mitchel in 1917 after performing autopsies on patients who died of tuberculosis of cervical nodes concluded that primary focus to be in the faucial tonsil. He thus advocated routine tonsillectomy for all patients with cervical tuberculous nodes.

Classification of tonsillar tuberculosis:

Irwin Moore’s classification: In his classic treatise on tonsillar tuberculosis Moore classified it into:

Primary tuberculosis of tonsil: Where there is tuberculosis of tonsil without involvement of lungs. He concluded that primary tuberculosis of tonsil could be due to Bovine strain of the organism.

Secondary tuberculosis of tonsil: In this category there is pulmonary involvement in addition to tonsillar tuberculosis.

Case Report:

53 years old male patient reported with complaints of:

1. Sore throat – 2 months duration

2. Painful swallowing – Odynophagia (2 months)

History revealed:

1. Loss of weight and appetite

2. Ear pain

3. Cough

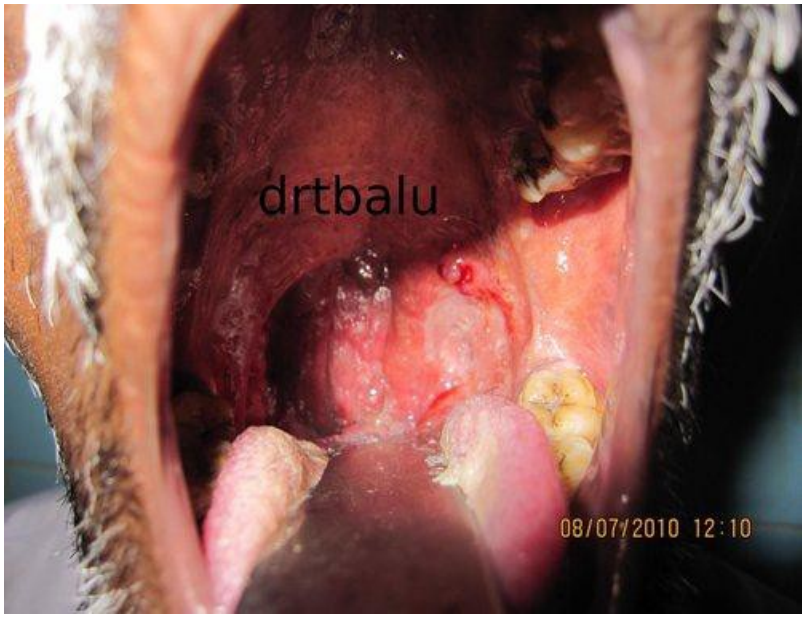
4. No history of haemoptysis / evening rise in temperature

He is a smoker and alcoholic.

Examination:

Patient was ill built.

Oral cavity: Revealed ulcerative lesion involving left tonsil. Anterior and posterior pillars were found to be eroded.



Photograph showing ulceration of left tonsil with erosion of both pillars

Neck examination:

Revealed enlarged, tender, and mobile jugulodigastric node on the left side. It measured 3cms in its largest dimension.

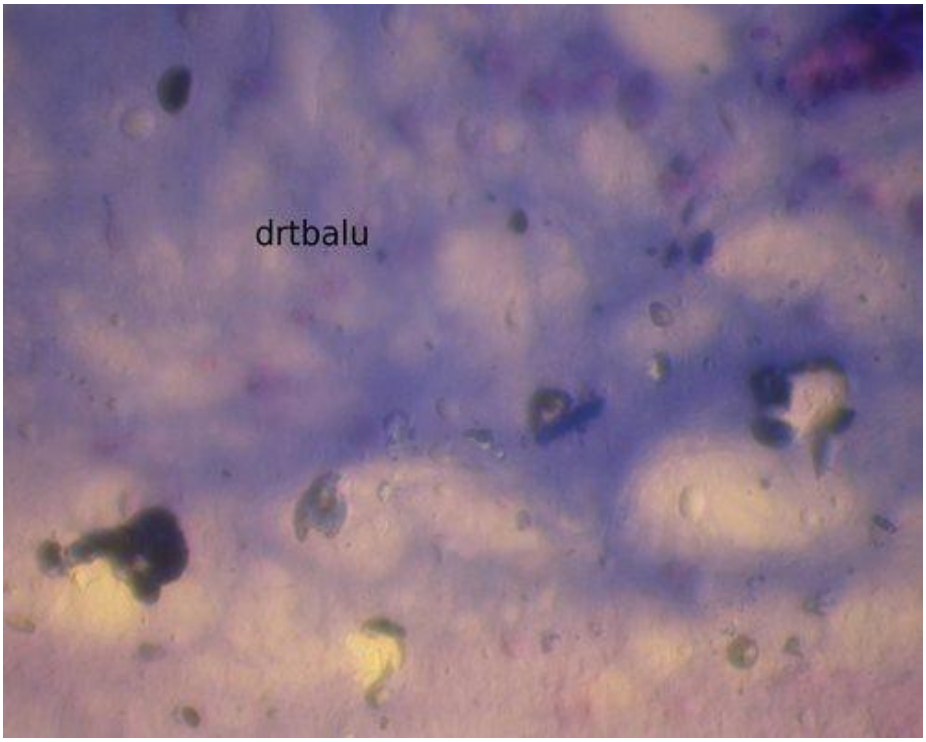
X-ray chest:

Revealed miliary mottling.

X-ray chest showing miliary mottling

Sputum for AFB:

Revealed the presence of Acid fast Bacilli.

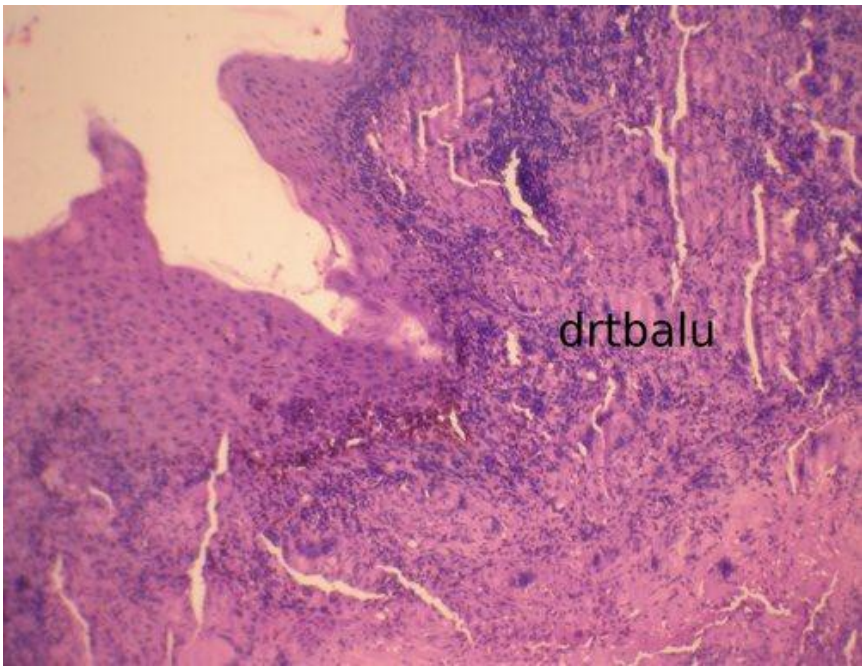


Picture showing AFB

Biopsy was taken from the lesion to rule out malignancy as it could co-exist with tonsillar tuberculosis[9].

Histopathology:

Section studied showed granulomatous lesion showing areas of caseation necrosis. Epithelial giant cells and Langhans giant cells were also seen.



Picture showing histopathology of the lesion

This patient was tested for HIV and was found to be negative.

Discussion:

Tuberculosis involving the tonsil is very rare. These days it is still rare because of better milk processing techniques like pasteurization which eradicates the bovine strain of tuberculosis. Even though tonsils are situated in an exposed area where infected material like sputum and food stuffs come into contact this lesion is rare because of the following features:

1. Antiseptic and cleansing action of saliva (first and foremost)

2. Presence of saprophytic organisms in the oral cavity which prevents growth of tubercle bacilli

3. The stratified squamous epithelial lining of the tonsil also offers some degree of protection

Tuberculosis of tonsils may be:

Primary - Due to ingestion of infected milk (Bovine strain)

Secondary - Due to pulmonary infection. The coughed out infected sputum finds its way to the throat to involve the tonsils.

Diagnosis of tuberculosis of tonsil is not straight forward. It needs high degree of suspicion.

Pointers for the diagnosis of tuberculosis tonsil:

1. Asymmetric enlargement of tonsil

2. Tonsillar enlargement without exudate

3. Obliteration of crypts

4. Painful deglutition

5. Presence of enlarged mobile jugulodigastric nodes

All these patients should undergo sputum examination as this could dictate the probable treatment modality. Sputum positive patient as the one reported in this case record should be started on multi drug regimen which includes 4 drugs.

1. INH
2. Rifampicin
3. Pyrazinamide
4. Ethambutol

Regimen I is indicated in all patients with tonsillar tuberculosis with AFB positive sputum.

This regimen includes:

Initial phase

1. INH
2. Rifampicin
3. Pyrazinamide
4. Ethambutol

Administered 7 days a week (once a day dose) (DOT) for 8 weeks.

Continuation Phase:

1. INH
2. Rifampicin

In two days a week dose for 18 days

Followed by:

1. INH

2. Rifampicin

Once a day / week dose for 18 weeks.

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POST TRAUMATIC DELAYED BILATERAL SIMULTANEOUS SYMMETRICAL FACIAL

palsy-A rare presentation

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ABSTRACT

Bilateral simultaneous facial palsy is an extremely rare clinical entity with Bell's palsy responsible for more than 20% of cases. where facial palsy follows head injury after many days,the mechanism is not clear and there has been no detailed study on this condition. We present a representative case of post traumatic bilateral simultaneous symmetrical facial palsy and discuss the causes of the same as they relate to this particular case.

INTRODUCTION

Unilateral facial paralysis is a relatively common condition with an incidence of 20-25 per 100000 population[(1)].The underlying cause is found only in 20% of unilateral palsies with the vast majority being attributed to idiopathic (or) Bell's palsy. Bilateral simultaneous facial palsy is an extremely rare clinical entity. The incidence is approximately one per five million per year[(2)].unlike the unilateral form,bilateral facial palsy seldom falls into the idiopathic (or) Bell's category. Also its occurrence does not rule out possibility of idiopathic causes.

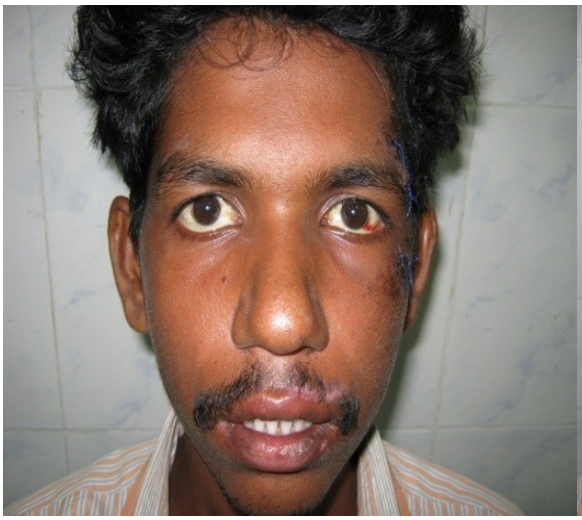


Fig 1 Fig 2

CASE REPORT:

A 23 year old male with no previous aural symptoms presented to ENT OPD with inability to close both eyes,blow the cheek and stasis of food in vestibule of mouth past one week duration. He had bilateral facial palsy(House 4).On carefully eliciting the history he revealed that two weeks before had a road traffic accident and presented to casualty where past records showed no facial weakness at time of presentation. Left side 2nd,3rd and 4th rib fracture ,left ear bleed, left zygoma and left lateral wall of orbit fracture are his other physical injuries noted. ICD done on left side and removed on 3rd day. Patient managed conservatively and discharged.

Fig 3

Other cranial nerves III-VI and IX-XII and fundoscopy was normal. On otoscopic examination Right TM-retracted and left TM-traumatic CP in anteroinferior quadrant. PTA done showed bilateral normal hearing sensitivity with low threshold for high frequencies. An urgent computed tomography(CT) scan of temporal bone and brain was normal. Electrical studies done. Bilateral flickering movements for normal stimulus. Patient responded to supra threshold stimulus at stylomastoid foramen on both sides.Presumptive diagnosis of Bilateral simultaneous symmetrical facial palsy was made.

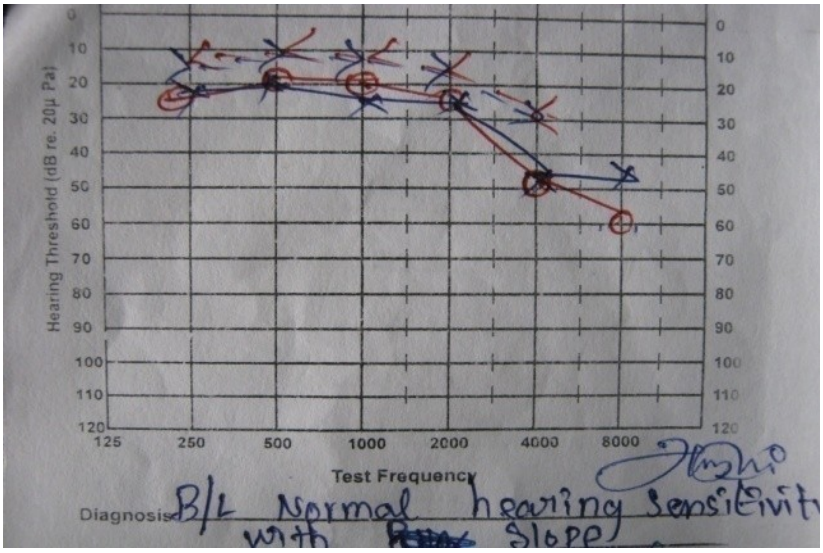
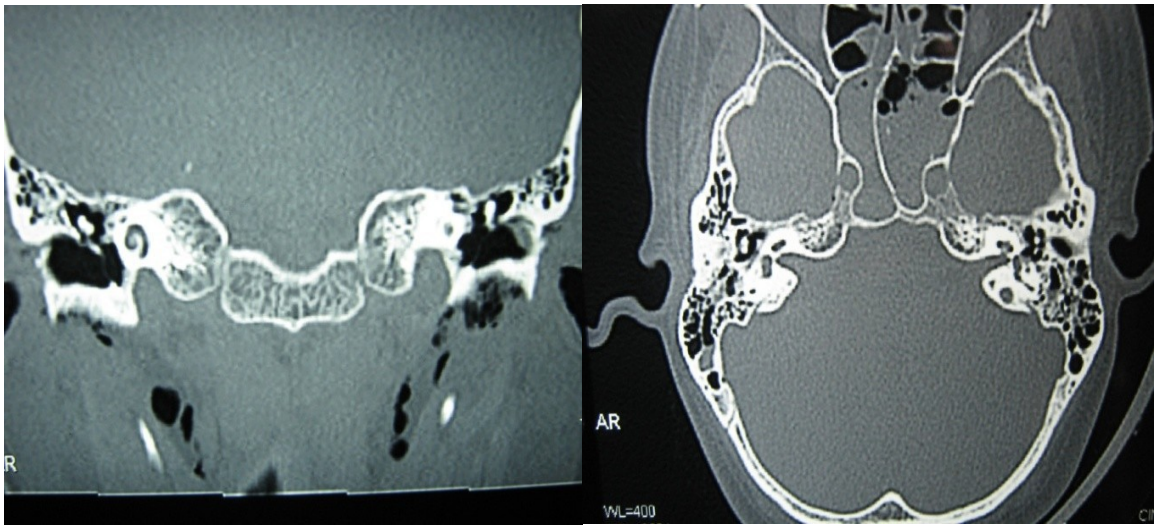


Figure showing pure tone audiometry



CT Temporal bones normal

He was commenced on intravenous methyl prednisolone 1gm 3 days and methyl cobalamine 2cc IM 3days then started on oral steroids and dose tapered. His eyes was closed with a patch and ciprofloxacin eye drops was applied.He recovered rapidly and on day 8 electrical studies repeated showed brisk response for normal threshold.

Day 1

Day 3

Day 5

Day 7

DISCUSSION

The facial nerve is the motor cranial nerve which is most commonly affected in closed head injuries. In facial palsy which immediately follows a head injury the mechanism is obvious but it is not clear when facial palsy follows the head injury after many days.

ONSET: The delay in onset of facial palsy after head injury varied from 2-21 days[3].The cases of conduction block had a delayed onset of 7-9 days.

CAUSES: According to Prof May, in his study on facial palsy among 3650 pt

only 2%[80] showed bilateral facial palsy and among 80,23 pt had traumatic etiology(Iatrogenic-5 & accidental-18).Other causes are Bell's palsy,facial hyperkinesia,neoplasm,CNS lesions,infection and others[9].

CLINICAL PROGRESS: In cases with a conduction block clinical recovery of facial weakness started by about 5th day and complete by 36th day. In conduction block,recovery of facial movements was complete and there were no sequelae In the facial canal,the area occupied by the facial nerve is only 30- 50% of the cross-sectional area of the canal[7].the remainder of the facial canal is occupied by blood vessels with connective tissues loosely arranged around it.

Delayed palsy is possibly the result of bleeding into the facial canal.Increasing size of hematoma in the limited non-expanding bony tube could press on the facial nerve and ultimately cut off its blood supply causing ischemic damage to the nerve[8].If the pressure were mild,there would be only a neuropraxia or conduction block due to segmental demyelination.If the damage were more severe there would be axonal damage with denervation due to a sudden shearing force The nerve could be compressed by its swelling within its fibrous sheath or epineurium and this swelling may be a delayed response to trauma to the nerve itself or secondary to damage to its surrounding vasculature causing oedema of facial canal which was non-bacterial which could be also likely cause of delayed facial palsy.

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FOREIGN BODY ORBIT

Dr Rajaselvam Krishnan Dr T Balasubramanian

Abstract:

The aim of this case presentation was to present the troubles and significance of a proper diagnosis of a foreign body which was retained in the orbit. A 13 years old boy, had a wound on the infraorbital margin caused by a metal foreign body, which stayed in close to the orbit. X-ray and echographic examinations of the orbit were not conclusive regarding the question whether this foreign body was situated within or outside the eyeball. Only CT imaging showed location of the foreign body. Foreign body was extracted by the same healed wound site.

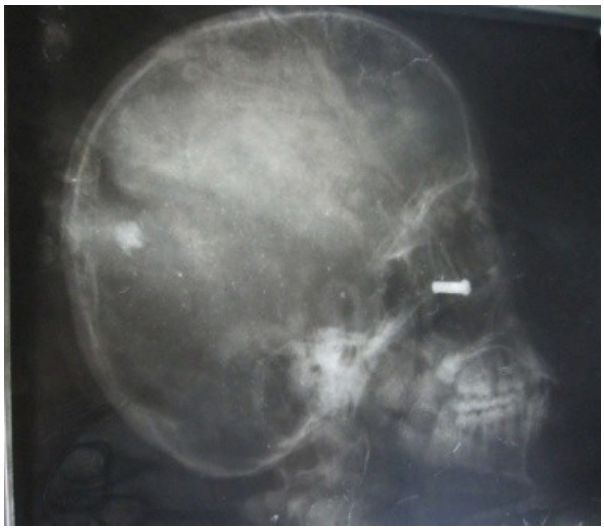
Case history:

13 years old boy fell down over a steel rod while playing. He was treated elsewhere and suture done immediately after the injury in the right infraorbital margin.He presented after 4 days to us.

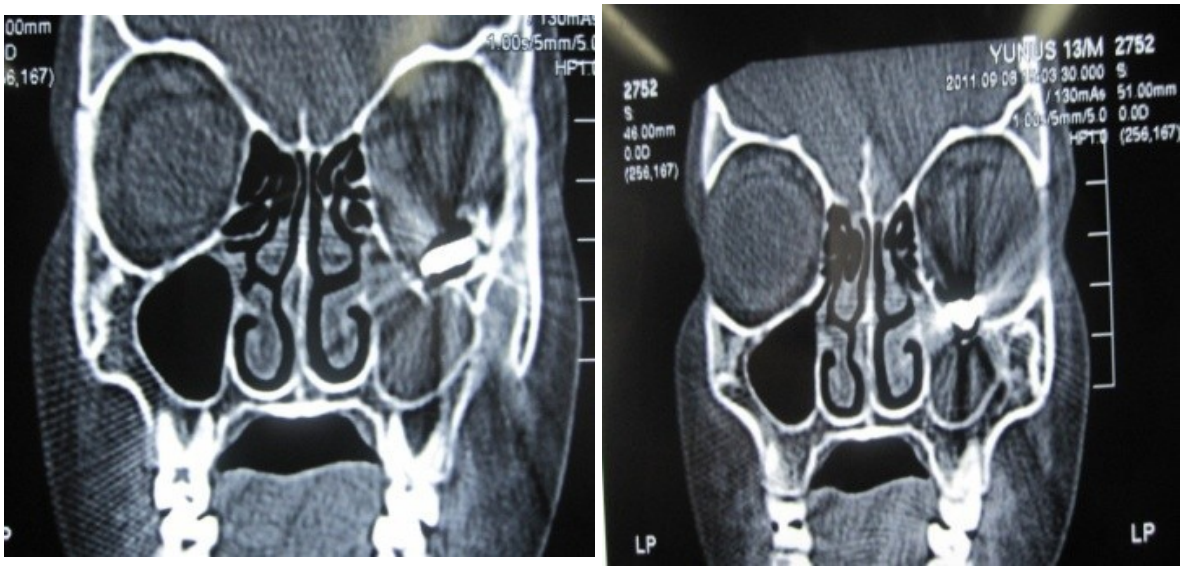
On examination,Proptosis (mild) of right eye+. Upwards movement of eye was restricted. Sutured wound seen just below right orbit (Fig-4). wound had been healed. vision RE: 6/6 LE: 6/6. The patient was afebrile. No other specific complaints.

X-ray orbit revealed periosteal reaction of orbital floor near the wound site. The patient's general health was good. A diagnosis of foreign body right orbit was made.

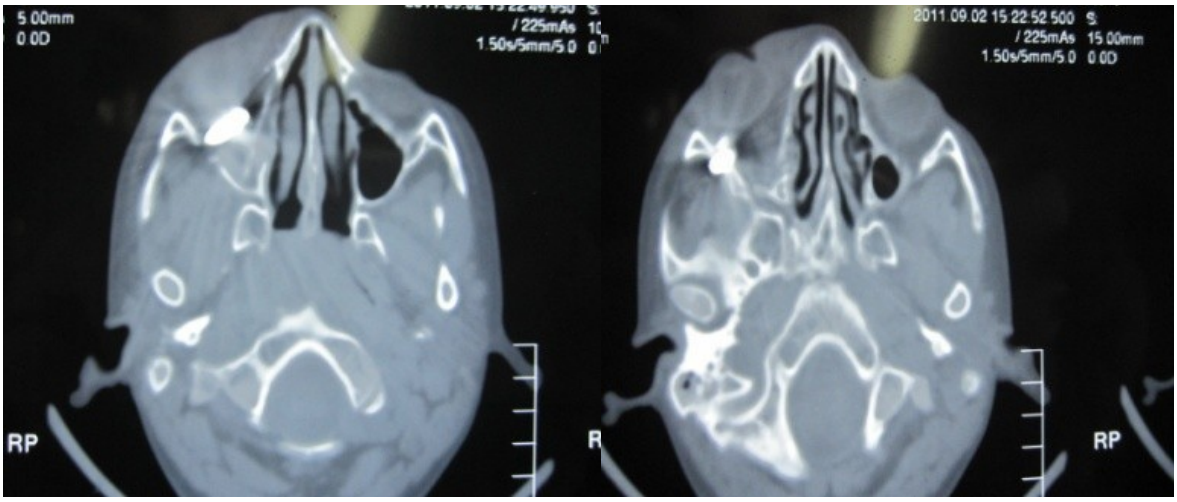
Since metal foreign body noticed in plain radiographs and CT(Fig2-3-4), exploration under general anaesthesia was planned.



X-ray skull lateral view showing radio opaque foreign body



CT nose and PNS coronal cuts showing radio opaque foreign body in the floor of right orbit



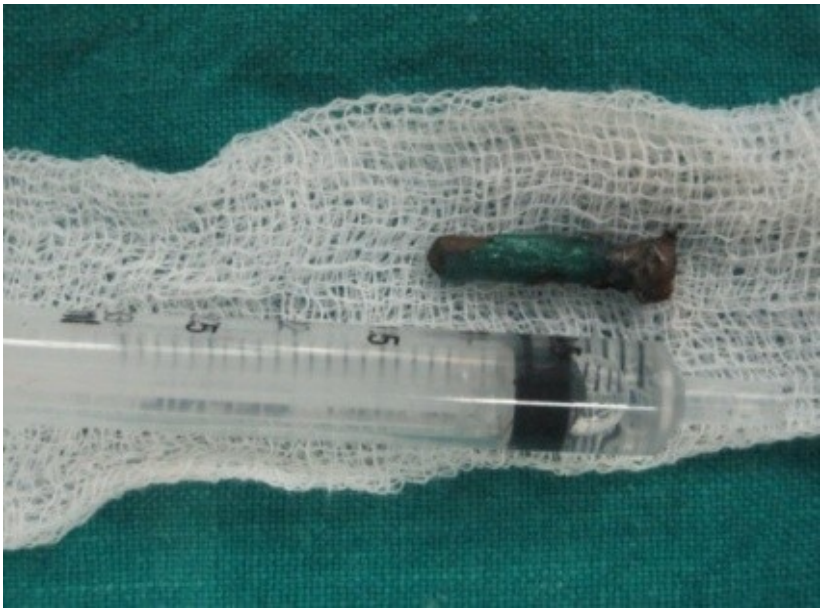
Axial CT of nose and paranasal sinuses showing foreign body inside right orbit

Procedure :

Under GA, patient in supine position ,insicion made along the sutured wound, meticulous dissection made out and the steel foreign body was found out at the apex of the orbit and the same is removed(Fig-5&6). Skin sutured with 2.0 silk. Post operative period was uneventfull.Patient discharged after one week .

Pre op picture Fig-4

Intraop picture Fig – 5



Foreign body after removal Fig – 6

Discussion

The presence of a foreign body was not suspected initially due to inadequate history and paucity of clinical findings. An object that penetrates through the orbit may leave only a small entry wound [2]. These patients may have normal vision, a normal neurological examination, despite trauma that may lead to significant complications[6].

A plain radiograph and CT of the orbit was performed when the patient came back. The plain radiograph and CT showed the presence and exact location of the foreign body Fig2-3-4).

Intra-orbital foreign bodies usually result from occupational accidents, gunshot injuries and road traffic accidents. Self inflicted injuries have also been reported[5]. Most of the foreign bodies are metallic, wooden particles or glass pieces [1].

Accurate localization of foreign bodies in the region of the orbit is vital for correct management [4].

CT is the investigation of choice. Both axial and direct coronal views are preferred with 3mm sections proving sufficient for most orbital injuries[3]

Though it is not necessary to surgically remove inert extraocular foreign bodies, in our case, surgical removal was performed considering the risk of infection. In an age when plastics are used in most day to day objects and are largely replacing metal and glass, it must be remembered that plastic is not particularly radio-opaque and can be missed on plain radiographs. The superior sensitivity of CT for detecting small variations in X-ray absorption allows easy and accurate detection of such foreign bodies.

It is surprising to come across such lengthy foreign bodies which are retained for long periods without the patients being aware (Fig 6). The metal particle in the above cases have remained in orbit for a long time without any symptoms. After an initial quiescent period of considerable variability in duration ranging from days to years complications often arise. There may be granuloma, orbital cellulitis, orbital abscess, osteomyelitis, periosteitis or chronic draining fistula, through the conjunctiva or through the palpebral skin. Retained foreign body is frequently missed due to its location within the orbit and its relative radio-luscency.

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LUPUS VULGARIS WITH LARYNGEAL LUPUS – A CASE REPORT

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Abstract :

Objectives : Tuberculosis ,though a common condition in our country is still an enigma because of its varied modes of clinical presentation,characteristics and spread.

Our objective is to stress the importance of an complete clinical examination andanalysis of the symptomatology in arriving at the diagnosis of laryngeal lupus andprovide an update on current knowledge and treatment of lupus vulgaris with laryngeal lupus.

Case Report :

A 23 yr old female presented with ulcerative lesion in the upper lip,

extending to the nose and also lesions in naso and oropharynx and in the larynx .A

provisional diagnosis of lupus vulgaris cuasing laryngeal lupus was made and

histopathologically confirmed.Patient dramatically improved with anti tubercular

treatment.

Conclusions :

A thorough clinical examination, a strong suspicion and judicious use of investigations provided the clinical diagnosis of laryngeal lupus and which showed good improvement with latest regimen of anti tubercular treatment with complete cure in six months with out any significant residual scarring or disfigurement.

Introduction:

Tuberculosis is an airborne communicable disease that occurs after inhalation of

infectious droplets expelled from patients with laryngeal or pulmonary tuberculosis

during coughing, sneezing or speaking. The probability that a disease transmission will occur depends on the infectiousness of the patient, the environment in which the exposure takes place and duration of exposure. Because of improved living conditions, BCG vaccination and effective chemotherapy, the incidence and severity shows a downward trend. Yet we are in no position to say that an effective control over the disease has been achieved , there is a resurgence in its occurrence probably due to HIV and multidrug resistant strains.

Lupus Vulgaris is a chronic,progressive and tissue destructive form of cutaneous tuberculosis seen in patients with moderate or high degree of immunity. We are presenting a case of lupus vulgaris of face and nose that has spread back into nasopharynx palate and to the larynx,which is rare.

Case report:

A 23 yrs old female presented with an ulcerative skin lesion with crusting over the upper lip and left nasolabial area for 1 yr duration. She had been treated by a general physician initially and was later attended by a general surgeon who has done a biopsy from the skin lesion which was opined as papilloma by the pathologist. The general surgery people were also considering squamous cell carcinoma and basal cell carcinoma as possibilities and had sought surgical oncology and plastic surgery opinion for complete excision of the lesion and plastic repair. Since she also had a history of change in voice for 4 months the oncologist referred the patient to us for opinion. ENT examination revealed an ulcerative lesion over the upper lip extending into left nostril to involve the anterior end of nasal septum, floor and anterior end of inferior turbinate.

Superficial ulcerative lesions were seen on posterior and left lateral walls of the naso pharynx, left side of uvula and soft palate. Videolaryngoscopy revealed irregular granular lesions in epiglottis(which was partially destroyed), ariepiglottic folds, arytenoids and false cords. Left vocal cord could not be visualized. Right vocal cord normal and mobile. Our first impression was tuberculosis of larynx, probably also

responsible for other lesions. We wanted to rule out other granulomatous lesions like wegeners,syphilis and complete workout done; renal function tests were normal, VDRL negative, X ray chest showed no evidence of pulmonary tuberculosis, [3] consecutive sputum sample examination for AFB were negative. The dermatologist gave a differential diagnosis of lupus vulgaris, verrucous vulgaris regarding the skin lesion. We proceeded with biopsy from the lesions in the lip,pharynx and larynx. Histopathological examination revealed typical granulomatous tubercle with epitheloid cells, langhans giant cells and a mononuclear infiltrate with minimal caseation.

The lack of evidence for any primary pulmonary tuberculosis, the absence of pain, lesions in the anterior parts of larynx were all contradicting a diagnosis of laryngeal tuberculosis. Considering the lesions in toto and on going through the literature and the fact that the skin lesions preceded the laryngeal lesion and the chronic indolent course we came to a diagnosis of lupus vulgaris with laryngeal involvement and since histopathology confirmed the diagnosis and ATT was started.

The patient was administered anti tubercular therapy consisting of Rifampicin(450mg),Isoniazid(300mg),Pyrazinamide(1500mg) and Ethambutal(800mg) thrice a week for two months followed by two drugs namely rifampicin and isoniazid for the next four months. This regimen was based on the revised national tuberculosis control pro gramme (RNTCP) guidelines of our country. The patient responded well and the lesions in the lip and larynx regressed showing improvement during the course and on completion of ATT the patient was near normal with no significant scarring or disfigurement.

Discussion

Different forms of cutaneous tuberculosis are lupusvulgaris,scrofuloderma, tuberculosis verrucosa cutis,lichen scrofulosorum, erythema induratum, papulonecrotic tuberculid. Amongst all these commonest is that of lupus vulgaris constituting 59% of total skin tuberculosis [1].This is a chronic, progressive and tissue destructive form of cutaneous tuberculosis seen in patients with moderate or high degree of immunity., occurring mostly in tuberculin sensitive patients.

Lesions appear in normal skin as a result of direct extension of underlying tuberclous foci, of lymphatic or hematogenous spread,or by primary inoculation, BCG vaccination or in scar of old scrofuloderma[1]. The study done by Singh Gurmohan showed significantly high frequency of this disease in the females [2]. It is the most common form of cutaneous tuberculosis in Europe but is less common in United states. In India it accounts for approximately 59% of cases [3]. Lupus is twice as common in females as in males and is developed most often in early adult life. The mucocutaneous junction of the nasal septum is the most common site of inoculation, as this is frequently exposed to trauma in patients who have the habit of picking the

nose [4].The lesion in majority of the cases,involves the skin of the nares and the skin and mucous membrane in front of the nose around upper lip and nasolabial fold [1] . The diagnostic feature is the presence of apple jelly nodules, pin head sized red spots which do not blanch when compressed, for instance with a glass slide [1]. This feature is not made out in many pigmented patients. The course is very slow, the cartilage within the affected area is progressively destroyed. Bone is usually spared .In more advanced cases, there may be more extensive involvement of the floor of nose and turbinates, spreading backwards from the primary site. The surface shows superficial ulcers and crusts. The septum may perforate but only in cartilaginous portion [4]. It may spread back into nasopharynx, the palate and the larynx [1] like what has happened in our case.

Clinical variants are numerous and are seen in the following forms:

Plaque forms: Disease extension occurs with little central atrophy. Scaling can occur,especially on the lower legs where it may resemble psoriasis. Irregular scarring is common and the active edge may be thickened and hyperkeratotic.

Ulcerating form: Scarring and ulceration predominate. Crusts form over areas of necrosis. Deep tissues and cartilage are invaded by eventual scarring that produces contractures and deformity.

Vegetative form: This form is characterized by necrosis, ulceration and proliferation and papillomatous granulation tissue.

Nodular form: This form is characterized by a relative absence of ulceration and scarring. Large soft tumours occur,especially on ear lobes.

The lesions characteristically progresses by peripheral extension and central healing, atrophy and scarring. Barrie (1975) describes two types of lupus involving the nose(a) a slowly progressive usually non ulcerative tuberculous infection of the skin.,the disease is probably borne by the finger to the nose and the bacillus enters the deep layers of the skin from a finger scratch. The condition is characterized by miliary tubercles forming lupus nodules in the dermis. (b)An ulcerative type of infection of the skin,which may spread rapidly,and which is nearly always secondarily infected by staphylococci . Lupus of pharynx and larynx occurs in 10-20% of the patients with lupus of the Skin [5]. Lupus of the pharynx is almost invariably secondary to lupus of nose and Face [6]. Laryngeal lupus is the result of spread from the nose. The free part of the epiglottis is the initial site of laryngeal disease but from here it may spread along the aryepiglotic folds as far back as the arytenoids. It has been known to encroach onto the false cords. Ulceration results in more or less destruction, chiefly of the epiglottis. It is painless, indeed often entirely symptomless, but examination of larynx may be prompted by the nasal condition. Lupus is not likely to be confused with laryngeal tuberculosis principally because of its characteristic

distribution, the absence of pulmonary disease and the presence of active or burnt out lupus of the nose [1]. Bhandary and Usha Ranganna have reported a case of Lupus Vulgaris of external nose and have stressed on the importance of taking a deeper biopsy for not missing the characteristic features of lupus vulgaris [8].

Conclusion:

Lupus vulgaris is a common morphologic form of cutaneous tuberculosis, but this type of spread to larynx with typical features of laryngeal lupus is rare. A high index of suspicion and a thorough clinical examination of the pharynx and larynx is mandatory for not missing this diagnosis of laryngeal lupus. Diagnosis of lupus from the skin lesion necessitates an adequate and deeper biopsy, as the superficial tissue may show only the non specific inflammatory cell infiltrate missing the characteristic features of lupus vulgaris. The disease was completely cured without any deformity.

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SUMMARY

· Lupus vulgaris ,a cutaneous form of Tuberculosis may sometimes spread to nose,pharynx and larynx.

· A23 yr old female patient with typical features of laryngeal lupus following the skin lesions is presented here.

· A thorough clinical examination of nose,pharynx and larynx., a collective analysis of the symptomatology and clinical findings and a deeper tissue biopsy have helped in diagnosis.

Fig 1

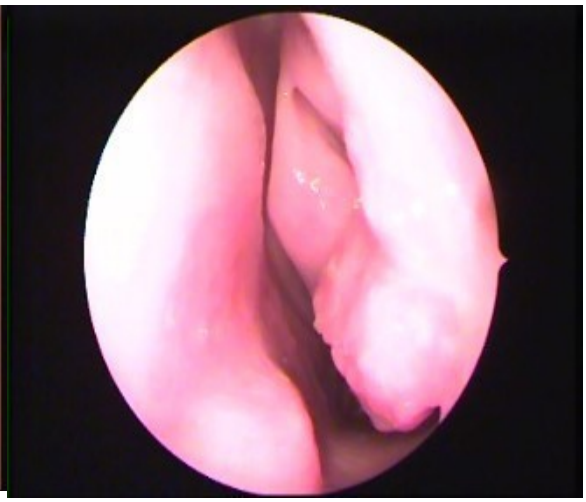


Fig 2

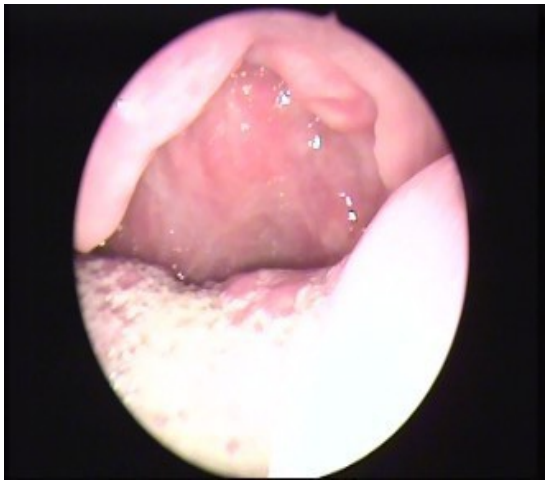


Fig 3

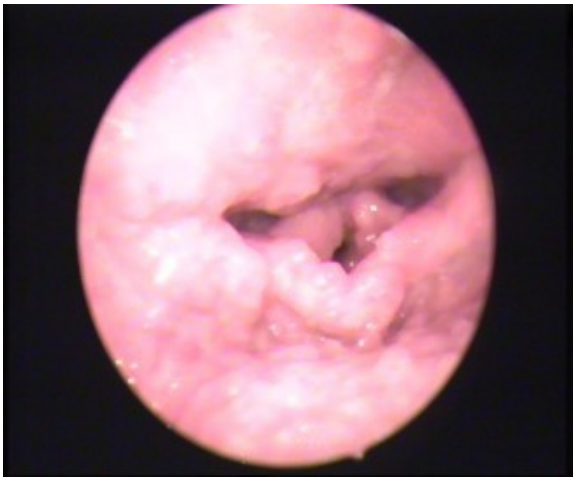
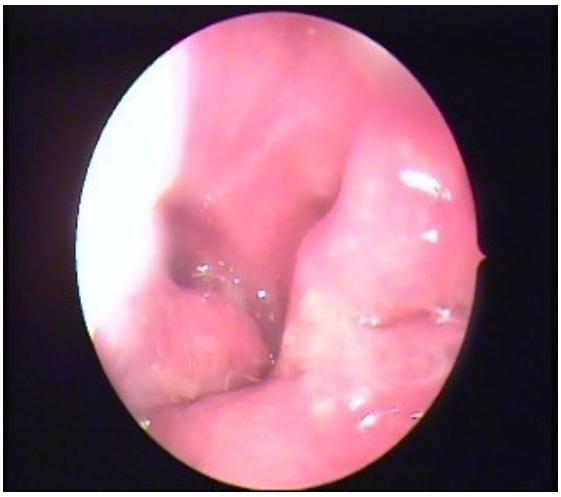


Fig 4



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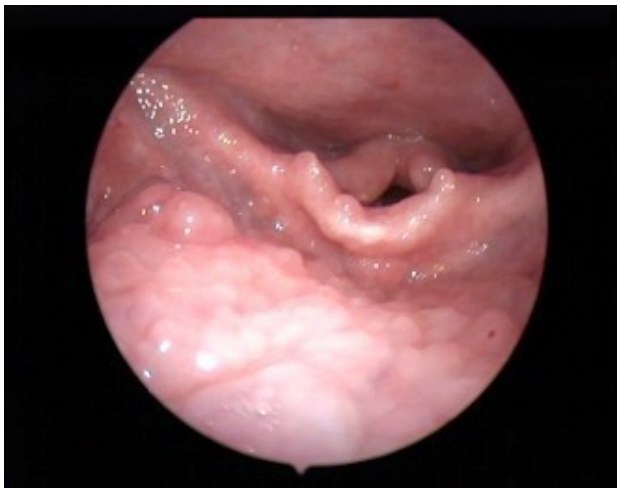

Fig 6

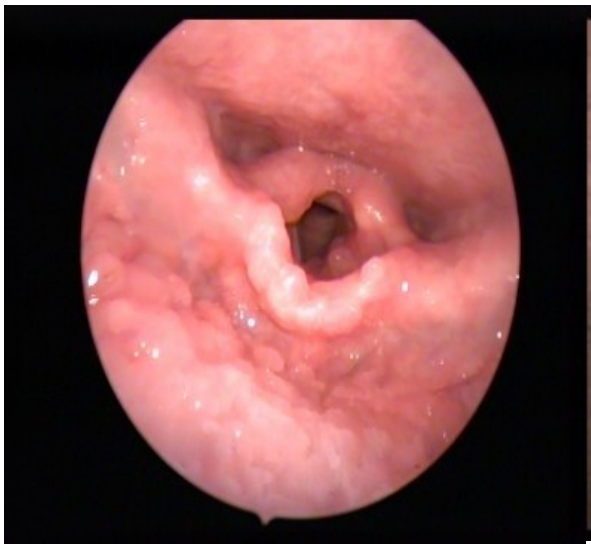

Fig 7

Fig 8

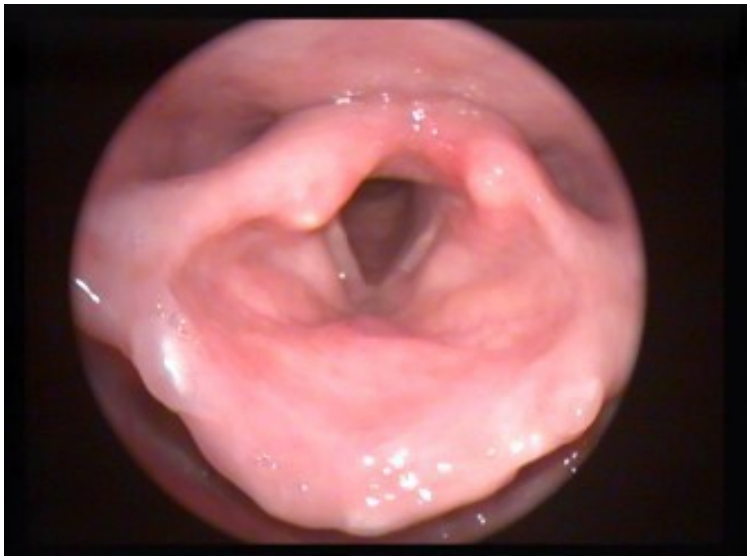

Fig 9

Figure legend.

Fig.1-Lupus vulgaris in lip extending to nose.

Fig.2 –Lesion in Septum and Inferior turbinate.

Fig.3 –Lesion in Soft palate.

Fig.4 – Lesion in Larynx.

Fig.5 – Lesion in Nasopharynx.

Fig.6 & 7 – During the course of treatment . .

Fig.8 & 9 – After treatment,lesion completely resolved.

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LEECH INSIDE NASAL CAVITY A DIFFICULT FOREIGN BODY AN INTERESTING CASE REPORT AND

review of literature

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ABSTRACT:

This article describes a live leech inside the nasal cavity of a patient who presented with epistaxis. This case is reported in order to create awareness of this condition as well as to discuss the practical difficulties in removing these live foreign bodies from nasal cavities. A review of pulished material on this subject illustrated lack of scientific model pertaining to the best removal methodology to be followed. The methods described in literature bears testimony to the innovative skills of the surgeon rather than evidence based practice. It should also be stressed that ill advised removal methods could proove counterproductive.

Introduction:

Presence of animate foreign body 1 causing epistaxis is rather rare. Practitioners in non leech infested areas may not be aware of such conditions 2. Leech infestation is common in tropics and mediterranean countries, Africa and Asia. Usually leeches enter nasal cavity when the patient takes bath in leech infested lakes / ponds. 1 Leeches are blood sucking hermaphrodite parasites which vary in color and length. The length of leeches could vary anywhere between few centimeters to half a meter[3]. Leeches on entering the human body tends to localize in the mucosa of oropharynx, nose, nasopharynx, tonsils, esophagus etc [4].

Direct removal of leech from nasal cavity could be troublesome because of its powerful attachement to nasal mucosa and the presence of slippery slime over its body [5]. Damaging a leech may cause it to regurgitate its bacteria filled stomach contents into the wound adding to the already existing problems [6].

Case report:

35 years old male patient came with complaints of:

Bleeding from right nasal cavity – 10 days duration (Intermittent in nature)

Nasal obstruction on the right side – 10 days duration

Mucoid discharge from right nose – 10 days

Pain and swelling over dorsum of nose – 10 days

Patient had seen multiple ENT sugeons and was treated for acute sinusitis.

Initial working diagnosis made was – Acute sinusitis.

X-ray paranasal sinuses revealed mucosal congestion inside the right nasal cavity.

Diagnostic nasal endoscopy was performed and it revealed a live leech attached to nasopharynx.

Under general anesthesia, patient's nasal cavity was sprayed with topical xylocaine 10%. This spray has dual advantages. It not only anesthetises nasal mucosa but also causes the leech to loose its grip from the nasal mucosa. The leech was removed using 4mm 0 degree nasal endoscope.

Plate showing leech inside nasal cavity

Plate showing removed leech

Discussion:

Leeches are blood sucking annelids belonging to the subgroup called Hirudinea. Hirudiniasis is the term used to indicate leech invasion of body cavities. The species Dinobdella ferox (ferocious leech / nasal leech) are known to invade the nasal cavity and airways. These leeches can be classified as:

1. Fresh water leeches

2. Terrestrial leeches

3. Marine leeches

This classification is actually based on their habitat. Leeches are common in still waters than flowing ones. Hence care should be taken while bathing in ponds and lakes. When leeches get attached to mucosal surface it begins to secrete its saliva. Saliva of leeches are supposed to contain local anesthetic material which blunts mucosal sensation in their hosts. The saliva of leeches also contain a unique substance known as Hirudin which is a very potent anticoagulant which prevents blood coagulation enabling them to feed voraciously. Their saliva also contains a potent vasodilator which keeps the blood supply to the area increased.

Leeches are known to ingest blood equivalent to 890% of their body weight, [7] hence affected individuals may suffer from severe anemia even to the extent of needing blood transfusion. [8] A high index of suspicion is necessary to diagnose leech infestation.

Advised procedure for removal:

Leeches have a tendency to release their bite when exposed to methanol [6.] This is commonly used for the purpose of removing leeches. Use of topical anesthetic agents like cocaine / lignocaine can cause paralysis of leech facilitating easy removal. Two innovative procedures / techniques [9] have been followed in removing leech from nasal cavity with equal success.

1. Sucking out leech from the nasal cavity using a powerful suction

2. By holding a kidney tray filled with water in front of the nasal cavity of the patient.

Leeches can sense fresh water. Leech inside the nasal cavity will start to migrate towards water contained in the kidney tray. As soon as it reaches the vestibule of the nose the same may be removed with the help of a forceps.

Conclusion:

Following caution won't be out of place:

1. Leeches should be removed promptly because prolonged exposure may cause infections and anaemia due to blood loss.

2. Leech bite causes intense itching due to exposure to its saliva

3. Leeches should not be removed using intense irritants / caustic agents like salt or by burning because these methods may cause leech to increase its bite and regurgitate their stomach contents which could contain harmful bacteria.

4. Even after removal of leech the wound will continue to bleed for sometime

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PANDA FACIES

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ABSTRACT: A CASE OF BILATERAL PERI ORBITAL ECCHYMOSIS WITHOUT ANY IDENTIFIABLE PATHOLOGY,WHICH SUBSIDED ON ITS OWN, IN DUE COURSE.

CASE STUDY:

Thulasi, aged 42 yrs, home maker, met with a road traffic accident. While attempting to cross the road, she was hit by a city bus on her side. Initially, she was taken to a nearby private hospital, where she was given first aid. Since it was a medicolegal case, she was referred to Govt. Kilpauk Medical Hospital. There she was given neuro clearance and then referred to RajivGandhi Govt. General Hospital for ENT opinion regarding epistaxis through her right nostril.

On the first day of admission, she had a central forehead haematoma 4x4cm, a lacerated wound over the root of the nose and an abrasion over the right ala and immediately below the nose. There was no AN/PN bleed. On the second day, she complained of giddiness. On the third day of admission, she developed purplish black discolouration around both eyes, with the forehead haematoma slightly increased in its size.

3rd day of admission

5th day

7th day

10th day

All necessary investigations and specialists opinion obtained. No abnormality could be detected. She was treated with antibiotics and supportive measures. In due course of time, the discolouration faded away. She was discharged on the tenth day. She was on regular follow up. She did not develop any post traumatic complications.

CASE DISCUSSION:

PANDA FACIES:

SYN: Panda eyes(UK), Raccoon eyes(US), Peri orbital ecchymosis, Black eyes Panda, a bear[1], native of central-western and south western China[2]. It is easily recognized by its large, distinctive black patches around the eyes, over the ears and across its round body.

Panda

Raccoon

Raccoon, a mammal, is a native of NorthAmerica[3]. Its most characteristic feature is area of black fur around the eyes, which contrasts sharply with the surrounding white face colouring.

Black eyes[4] are mostly due to uncomplicated facial contusions.

CAUSES:

1. Direct trauma to eyes and surrounding tissues.

2. Skull base fractures (most common).

3. Le Fort fractures, NEO Injuries.

4. Iatrogenic- Rhinoplasty, Craniotomy.

5. Certain malignancies[5].

6. Trigeminal autonomic cephalgia.

. Amyloidosis.

. Neuroblastoma[6].

. Vigorous sneezing, coughing.

. Chronic cocaine usuage.

. Child abuse.

Cases Reported:

A 9month old girl with raccoon eyes was investigated and found to have neuroblastoma[7]

A 22yr male, suffereing from dengue haemorrhagic fever was found to have bilateral peri orbital ecchymosis[8].

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